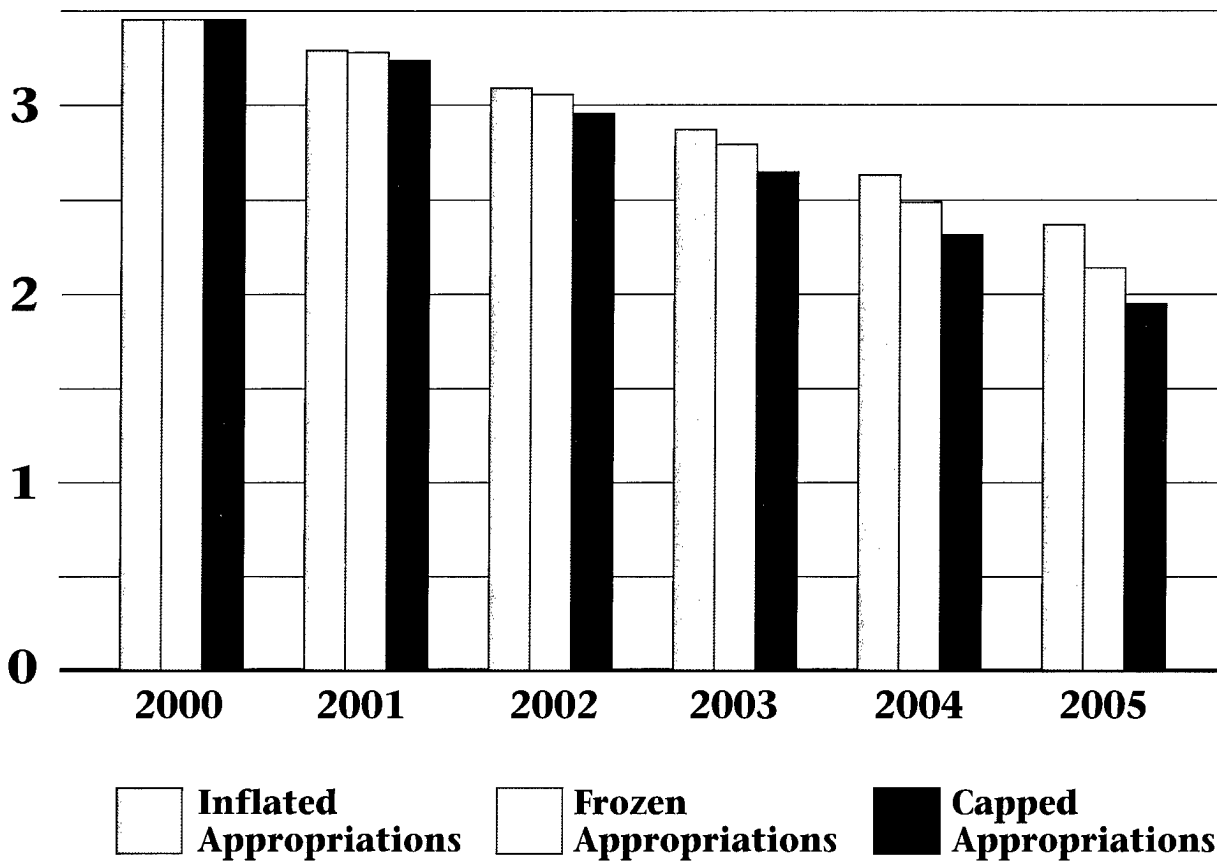


The Budget and Economic Outlook: Fiscal Years 2001-2010

Debt Held by the Public Under the CBO Baseline (In trillions of dollars)



A REPORT TO THE SENATE AND
HOUSE COMMITTEES ON THE BUDGET

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**THE BUDGET AND ECONOMIC OUTLOOK:
FISCAL YEARS 2001-2010**

The Congress of the United States
Congressional Budget Office

NOTES

Unless otherwise indicated, all years referred to in Chapters 2 and 5 are calendar years, and all years in other chapters and appendixes are fiscal years.

Some figures in this report indicate periods of recession by using shaded vertical bars. The bars extend from the peak to the trough of the recession.

Numbers in the text and tables may not add up to totals because of rounding.

Preface

This volume is one of a series of reports on the state of the economy and the budget that the Congressional Budget Office (CBO) issues each year. It satisfies the requirement of section 202(e) of the Congressional Budget Act of 1974 for CBO to submit periodic reports to the Committees on the Budget with respect to fiscal policy and to provide five-year baseline projections of the federal budget. In accordance with CBO's mandate to provide objective and impartial analysis, the report contains no recommendations.

The analysis of the economic outlook presented in Chapter 2 was prepared by the Macroeconomic Analysis Division under the direction of Robert Dennis, Kim J. Kowalewski, and John F. Peterson. David Brauer wrote the chapter. John F. Peterson, Robert Arnold, and David Arnold carried out the economic forecast and projections. Ufuk Demiroglu, Douglas Hamilton, Juann Hung, Mark Lasky, Angelo Mascaro, Preston Miller, Benjamin Page, Frank Russek, Matthew Salomon, Robert Shackleton, John Sturrock, and Christopher Williams contributed to the analysis. David Arnold and Ezra Finkin provided research assistance.

The baseline spending projections were prepared by the staff of the Budget Analysis Division under the supervision of Robert Sunshine, Peter Fontaine, Priscilla Aycock, Thomas Bradley, Kim Cawley, Paul Cullinan, Jeffrey Holland, and Michael Miller. The revenue estimates were prepared by the staff of the Tax Analysis Division under the supervision of Thomas Woodward and Mark Booth. The budget outlook described in Chapter 1 was written by Susan Tanaka. Mark Booth, Richard Kasten, and Thomas Woodward wrote Chapter 3; Laurie Pounder and Ilga Semeiks wrote Chapter 4; and Robert Dennis, Mark Booth, and Paul Cullinan wrote Chapter 5 using economic scenarios calculated by Mark Lasky and John F. Peterson. Robert Arnold wrote Appendix A; Kathleen Gramp, David Moore, and Coleman Bazelon wrote Appendix B; Taman Morris wrote Appendix C and Appendix D; and Ilga Semeiks wrote Appendix E. Jennifer Smith coordinated the revision of the glossary. Jeffrey Holland wrote the summary of the report.

An early version of the economic forecast underlying this report was discussed at a meeting of CBO's Panel of Economic Advisers. Members of the panel are Alan J. Auerbach, Jagdish Bhagwati, Michael Boskin, Barry P. Bosworth, John Cogan, Robert Dederick, William C. Dudley, Martin Feldstein, Robert J. Gordon, David Hale, Robert E. Hall, N. Gregory Mankiw, Allan Meltzer, William Niskanen, William D. Nordhaus, June E. O'Neill, Rudolph Penner, James Poterba, Robert Reischauer, Joel Slemrod, John Taylor, and Martin B. Zimmerman. Kenneth N. Kuttner, Joel Prakken, and Mark Watson attended as guests. Although these outside advisers provided considerable assistance, they are not responsible for the contents of this document.

Sherry Snyder supervised the editing of the report, and Kathryn Quattrone supervised production. Major portions were edited by Sherry Snyder, Leah Mazade, and Christian Spoor. The authors owe thanks to Marion Curry, Linda Lewis Harris, Denise Jordan, Dorothy Kornegay, and Simone Thomas, who assisted in the preparation of the report. Kathryn Quattrone prepared the report for final publication, with assistance from Sam Nadeau, and Laurie Brown prepared the electronic versions for CBO's World Wide Web site. Barry Anderson designed the cover.

Dan L. Crippen
Director

January 2000

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are available at CBO's Web site:
<http://www.cbo.gov>

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Summary

Total federal revenues exceeded spending by \$124 billion in fiscal year 1999, producing a surplus in the total budget for the second consecutive year. The Congressional Budget Office (CBO) estimates that without legislative changes, that surplus will rise to \$176 billion in 2000 (see Summary Table 1). If current policies remain in place, the surplus will continue to increase after 2000, CBO projects; however, the size of that increase depends on the amount of discretionary spending that is assumed.

CBO's baseline projections are intended to provide the Congress with estimates of the spending and revenues that will occur if current laws affecting the budget remain unchanged. In the case of mandatory spending and revenues, which are generally governed by permanent laws, the projections incorporate the effects of anticipated changes in the economy, demographics, and other relevant factors.

In the case of discretionary spending, however, which is controlled by annual appropriation acts, no consensus exists about how to define current policy as it applies to future years. Is it best represented by the statutory caps on discretionary budget authority and outlays, which were most recently specified in the Balanced Budget Act of 1997? Or does section 257(c)(1) of the Balanced Budget and Emergency Deficit Control Act of 1985 better depict current policy by specifying that baselines should be adjusted for inflation? Or is current policy for discretionary spending simply the amount that was provided in appropriations for the current year?

Without any definitive answer to those questions, CBO presents three variants of its baseline in this re-

port. Each one reflects a different assumption about discretionary spending.

- o The "inflated" variation assumes that budget authority for discretionary programs grows at the rate of inflation each year after 2000.
- o The "freeze" variation pegs discretionary budget authority to the level enacted for the current year, plus amounts already enacted for 2001.
- o The "capped" variation assumes that discretionary spending equals CBO's estimates of the statutory caps through 2002 and grows at the rate of inflation thereafter.

The Congress has used each of those spending paths as a benchmark in some past budget deliberations. Each alternative has limitations, however. As they currently stand, the caps may not be a realistic reference point given recent action on discretionary spending. The inflated baseline, for its part, implicitly earmarks future resources to maintain the real (inflation-adjusted) level of discretionary spending even though there is no explicit statutory basis for such earmarking. And the freeze baseline ignores the effects of pay raises and inflation—costs that could erode the amount of services or programs that the government can deliver. In addition, both the inflated and freeze baselines mechanically repeat funding for programs (such as the decennial census) whose needs are known to be significantly greater or less in future years.

Most of the components of CBO's baseline budget projections—revenues, mandatory spending, and

offsetting receipts—are the same no matter which assumption about discretionary spending is used. Net interest costs, however, depend on the amount of projected debt outstanding, which in turn reflects the choice of paths for discretionary outlays. Likewise, projections of the surplus will vary depending on assumptions about the discretionary portion of the budget and the resulting effects on interest costs.

Regardless of the variant, the budgetary picture is a bright one. Between 2001 and 2010, accumulated surpluses are projected to total \$3.2 trillion under the inflated baseline and \$4.2 trillion under the freeze or capped baseline. On-budget surpluses (which exclude the spending and revenues of Social Security and the Postal Service) total more than \$800 billion under the inflated baseline and \$1.9 trillion under the other two baselines.

Those surpluses are much larger than the ones that CBO projected last July in *The Economic and Budget Outlook: An Update*. Comparing capped baselines (which CBO used in that report), the cumulative surplus for the 2000-2009 period is now \$879 billion higher, despite legislation enacted since July that reduces that surplus by a total of \$127 billion between 2000 and 2009. The effects of new legislation are more than offset by changes in economic and other factors that increase revenues by \$651 billion over that period and reduce spending by \$355 billion.

Most of the improvement in the budgetary picture results from CBO's updated economic outlook. Real economic growth is forecast to average about 3 percent a year over the next two years, with only a slight rise in the underlying rate of inflation. For the longer term, CBO projects that real growth will aver-

Summary Table 1.
The Budget Outlook Under Current Policies (By fiscal year, in billions of dollars)

	Actual 1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Total, 2001- 2010
Discretionary Spending Grows at the Rate of Inflation After 2000													
On-Budget Surplus	1	23	11	26	31	37	43	86	115	131	162	195	838
Off-Budget Surplus	<u>124</u>	<u>153</u>	<u>166</u>	<u>182</u>	<u>195</u>	<u>209</u>	<u>225</u>	<u>239</u>	<u>254</u>	<u>268</u>	<u>281</u>	<u>295</u>	<u>2,314</u>
Total Surplus	124	176	177	209	227	246	268	325	368	399	444	489	3,152
Discretionary Spending Is Frozen at the Level Enacted for 2000													
On-Budget Surplus	1	23	22	50	76	102	129	194	245	288	346	407	1,858
Off-Budget Surplus	<u>124</u>	<u>153</u>	<u>166</u>	<u>182</u>	<u>196</u>	<u>209</u>	<u>226</u>	<u>240</u>	<u>255</u>	<u>269</u>	<u>282</u>	<u>296</u>	<u>2,320</u>
Total Surplus	124	176	188	232	271	312	355	434	500	556	628	703	4,179
Discretionary Spending Equals CBO's Estimates of the Caps Through 2002 and Grows at the Rate of Inflation Thereafter													
On-Budget Surplus	1	23	69	112	126	136	151	199	231	258	298	339	1,918
Off-Budget Surplus	<u>124</u>	<u>153</u>	<u>166</u>	<u>182</u>	<u>195</u>	<u>209</u>	<u>225</u>	<u>239</u>	<u>254</u>	<u>268</u>	<u>281</u>	<u>295</u>	<u>2,314</u>
Total Surplus	124	176	235	294	321	345	376	438	485	526	579	633	4,232

SOURCE: Congressional Budget Office.

age 2.7 percent a year from 2002 through 2010, taking into account the possibility of booms and recessions during that period.

The Budget Outlook

The total budget surplus of \$176 billion that CBO is projecting for this year results from a \$153 billion surplus in off-budget accounts—mainly the Social Security trust funds, whose inflows and outflows are accounted for separately from those of the rest of the government—and a \$23 billion surplus in on-budget accounts. That on-budget surplus would be the largest ever in nominal dollars. Measured as a percentage of gross domestic product (GDP), it would be the largest since 1951.

Assuming that current policies do not change, CBO projects growing surpluses over the next decade. The total budget surplus would reach between 3 percent and 5 percent of GDP by 2010 depending on the path of discretionary spending (see Summary Tables 2, 3, and 4). The on-budget surplus would range between 1 percent and 3 percent of GDP.

Changes Since July

CBO's current budget outlook is considerably more positive than the one described in its July 1999 report. Since then, CBO estimates, the Congress and the President have enacted legislation that increases projected spending over the 2000-2009 period by about \$109 billion and reduces projected revenues by \$18 billion, compared with the levels in CBO's July baseline (see Summary Table 5 on page xix). The majority of that legislative action occurred at the end of the session, when the Congress and the President enacted the District of Columbia appropriation act and nine other acts enacted by reference—four regular appropriation acts (for the Departments of Commerce, Justice, and State; for foreign operations; for the Department of the Interior; and for the Departments of Labor, Health and Human Services, and Education), a miscellaneous appropriation act, and four additional acts. The effects of that legislation, however, have been more than off-

set by changes in CBO's estimates of future revenues and outlays that have added to projected surpluses.

Most of the improvement in the budget outlook since July results from the continuing strength of the economy, which CBO estimates will produce higher revenues. The current revenue projections are more than \$500 billion higher over the 10-year period because of changes in CBO's economic forecast. Most of that increase stems from higher projected levels of wage and salary income, which boost receipts from individual income and social insurance taxes.

CBO projects that interest rates will be approximately 1 percentage point higher in 2001 and 2002 than previously forecast and at least 0.3 percentage points higher after that. Such changes boost anticipated interest costs (in the capped baseline) by \$56 billion through 2009. At the same time, higher revenue projections and other factors lower the projected costs of servicing the federal debt by as much as \$31 billion a year by 2009 and by a total of \$138 billion over the 10-year period.

Changes in factors other than legislation and the economic outlook (so-called technical changes) increase the surplus under the capped baseline by \$366 billion over 10 years. Technical changes to revenue projections account for \$141 billion of that difference—mostly the result of an increase in projected realizations of capital gains in the near term and other effects on social insurance taxes and individual income taxes in later years. Technical changes to outlay projections (other than for debt service) represent a similar amount—nearly all of it resulting from changes to CBO's estimates of Medicare spending. Continued emphasis on improving compliance with program rules and a larger-than-anticipated drop in the use of home health care services have slowed the growth of Medicare spending, prompting CBO to adjust its estimates downward.

Revenue Projections for 2000 Through 2010

CBO estimates that total federal revenues will exceed \$1.9 trillion in fiscal year 2000 if current policies remain unchanged—marking the eighth consecutive year

Summary Table 2.**CBO Baseline Budget Projections, Assuming That Discretionary Spending Grows at the Rate of Inflation After 2000 (By fiscal year)**

	Actual 1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
In Billions of Dollars												
Revenues												
Individual income	879	945	986	1,026	1,068	1,112	1,162	1,217	1,275	1,339	1,407	1,480
Corporate income	185	189	189	187	190	194	200	208	216	225	233	242
Social insurance	612	653	684	714	742	770	808	842	878	913	954	998
Other	<u>151</u>	<u>158</u>	<u>158</u>	<u>169</u>	<u>177</u>	<u>187</u>	<u>192</u>	<u>198</u>	<u>202</u>	<u>210</u>	<u>218</u>	<u>226</u>
Total	1,827	1,945	2,016	2,096	2,177	2,263	2,361	2,465	2,572	2,686	2,813	2,946
On-budget	1,383	1,465	1,515	1,571	1,630	1,693	1,764	1,843	1,923	2,010	2,106	2,208
Off-budget	444	480	502	525	547	570	597	623	649	676	707	738
Outlays												
Discretionary spending	575	603	635	650	669	684	702	716	730	750	768	786
Mandatory spending	977	1,020	1,071	1,119	1,182	1,249	1,329	1,385	1,460	1,550	1,643	1,744
Offsetting receipts	-78	-79	-85	-91	-94	-93	-98	-103	-108	-113	-119	-125
Net interest	230	224	218	209	194	177	160	142	122	101	80	68
Proceeds from investing excess cash	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>-3</u>	<u>-16</u>
Total	1,703	1,769	1,839	1,888	1,950	2,017	2,093	2,140	2,204	2,287	2,369	2,457
On-budget	1,382	1,442	1,504	1,545	1,598	1,656	1,721	1,756	1,808	1,879	1,944	2,014
Off-budget	321	327	336	343	352	361	372	384	396	409	425	443
Surplus	124	176	177	209	227	246	268	325	368	399	444	489
On-budget	1	23	11	26	31	37	43	86	115	131	162	195
Off-budget	124	153	166	182	195	209	225	239	254	268	281	295
Debt Held by the Public	3,633	3,455	3,292	3,097	2,884	2,651	2,394	2,080	1,721	1,330	1,016	941
As a Percentage of GDP												
Revenues												
Individual income	9.6	9.9	9.8	9.8	9.7	9.7	9.7	9.8	9.8	9.9	9.9	10.0
Corporate income	2.0	2.0	1.9	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.6
Social insurance	6.7	6.8	6.8	6.8	6.8	6.7	6.8	6.8	6.8	6.7	6.7	6.7
Other	<u>1.7</u>	<u>1.6</u>	<u>1.6</u>	<u>1.6</u>	<u>1.6</u>	<u>1.6</u>	<u>1.6</u>	<u>1.6</u>	<u>1.6</u>	<u>1.5</u>	<u>1.5</u>	<u>1.5</u>
Total	20.0	20.3	20.1	20.0	19.9	19.8	19.8	19.8	19.8	19.8	19.8	19.8
On-budget	15.2	15.3	15.1	15.0	14.9	14.8	14.8	14.8	14.8	14.8	14.8	14.9
Off-budget	4.9	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Outlays												
Discretionary spending	6.3	6.3	6.3	6.2	6.1	6.0	5.9	5.7	5.6	5.5	5.4	5.3
Mandatory spending	10.7	10.6	10.7	10.7	10.8	10.9	11.1	11.1	11.2	11.4	11.6	11.7
Offsetting receipts	-0.9	-0.8	-0.8	-0.9	-0.9	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8
Net interest	2.5	2.3	2.2	2.0	1.8	1.6	1.3	1.1	0.9	0.7	0.6	0.5
Proceeds from investing excess cash	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>*</u>	<u>-0.1</u>
Total	18.7	18.5	18.3	18.0	17.8	17.7	17.6	17.2	16.9	16.8	16.7	16.5
On-budget	15.2	15.1	15.0	14.7	14.6	14.5	14.4	14.1	13.9	13.8	13.7	13.6
Off-budget	3.5	3.4	3.3	3.3	3.2	3.2	3.1	3.1	3.0	3.0	3.0	3.0
Surplus	1.4	1.8	1.8	2.0	2.1	2.2	2.2	2.6	2.8	2.9	3.1	3.3
On-budget	*	0.2	0.1	0.3	0.3	0.3	0.4	0.7	0.9	1.0	1.1	1.3
Off-budget	1.4	1.6	1.7	1.7	1.8	1.8	1.9	1.9	2.0	2.0	2.0	2.0
Debt Held by the Public	39.9	36.1	32.8	29.5	26.3	23.2	20.1	16.7	13.2	9.8	7.2	6.3

SOURCE: Congressional Budget Office.

NOTE: n.a. = not applicable; * = less than 0.05 percent of GDP.

Summary Table 3.
CBO Baseline Budget Projections, Assuming That Discretionary Spending Is Frozen at the Level Enacted for 2000 (By fiscal year)

	Actual 1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
In Billions of Dollars												
Revenues												
Individual income	879	945	986	1,026	1,068	1,112	1,162	1,217	1,275	1,339	1,407	1,480
Corporate income	185	189	189	187	190	194	200	208	216	225	233	242
Social insurance	612	653	684	714	742	770	808	842	878	913	954	998
Other	<u>151</u>	<u>158</u>	<u>158</u>	<u>169</u>	<u>177</u>	<u>187</u>	<u>192</u>	<u>198</u>	<u>202</u>	<u>210</u>	<u>218</u>	<u>226</u>
Total	1,827	1,945	2,016	2,096	2,177	2,263	2,361	2,465	2,572	2,686	2,813	2,946
On-budget	1,383	1,465	1,515	1,571	1,630	1,693	1,764	1,843	1,923	2,010	2,106	2,208
Off-budget	444	480	502	525	547	570	597	623	649	676	707	738
Outlays												
Discretionary spending	575	603	624	628	627	624	625	623	620	622	621	621
Mandatory spending	977	1,020	1,071	1,119	1,182	1,249	1,329	1,385	1,460	1,550	1,643	1,744
Offsetting receipts	-78	-79	-85	-91	-94	-93	-98	-103	-108	-113	-119	-125
Net interest	230	224	218	208	191	171	150	127	101	81	72	68
Proceeds from investing excess cash	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>-9</u>	<u>-33</u>	<u>-65</u>
Total	1,703	1,769	1,829	1,864	1,905	1,951	2,006	2,032	2,073	2,130	2,185	2,244
On-budget	1,382	1,442	1,493	1,521	1,554	1,590	1,635	1,649	1,678	1,722	1,761	1,801
Off-budget	321	327	336	342	352	361	372	383	395	408	424	442
Surplus	124	176	188	232	271	312	355	434	500	556	628	703
On-budget	1	23	22	50	76	102	129	194	245	288	346	407
Off-budget	124	153	166	182	196	209	226	240	255	269	282	296
Debt Held by the Public	3,633	3,455	3,281	3,062	2,805	2,506	2,162	1,739	1,249	1,078	1,016	941
As a Percentage of GDP												
Revenues												
Individual income	9.6	9.9	9.8	9.8	9.7	9.7	9.7	9.8	9.8	9.9	9.9	10.0
Corporate income	2.0	2.0	1.9	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.6
Social insurance	6.7	6.8	6.8	6.8	6.8	6.7	6.8	6.8	6.8	6.7	6.7	6.7
Other	<u>1.7</u>	<u>1.6</u>	<u>1.6</u>	<u>1.6</u>	<u>1.6</u>	<u>1.6</u>	<u>1.6</u>	<u>1.6</u>	<u>1.6</u>	<u>1.5</u>	<u>1.5</u>	<u>1.5</u>
Total	20.0	20.3	20.1	20.0	19.9	19.8	19.8	19.8	19.8	19.8	19.8	19.8
On-budget	15.2	15.3	15.1	15.0	14.9	14.8	14.8	14.8	14.8	14.8	14.8	14.9
Off-budget	4.9	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Outlays												
Discretionary spending	6.3	6.3	6.2	6.0	5.7	5.5	5.2	5.0	4.8	4.6	4.4	4.2
Mandatory spending	10.7	10.6	10.7	10.7	10.8	10.9	11.1	11.1	11.2	11.4	11.6	11.7
Offsetting receipts	-0.9	-0.8	-0.8	-0.9	-0.9	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8
Net interest	2.5	2.3	2.2	2.0	1.7	1.5	1.3	1.0	0.8	0.6	0.5	0.5
Proceeds from investing excess cash	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>-0.1</u>	<u>-0.2</u>	<u>-0.4</u>
Total	18.7	18.5	18.2	17.8	17.4	17.1	16.8	16.3	15.9	15.7	15.4	15.1
On-budget	15.2	15.1	14.9	14.5	14.2	13.9	13.7	13.2	12.9	12.7	12.4	12.1
Off-budget	3.5	3.4	3.3	3.3	3.2	3.2	3.1	3.1	3.0	3.0	3.0	3.0
Surplus	1.4	1.8	1.9	2.2	2.5	2.7	3.0	3.5	3.8	4.1	4.4	4.7
On-budget	*	0.2	0.2	0.5	0.7	0.9	1.1	1.6	1.9	2.1	2.4	2.7
Off-budget	1.4	1.6	1.7	1.7	1.8	1.8	1.9	1.9	2.0	2.0	2.0	2.0
Debt Held by the Public	39.9	36.1	32.7	29.2	25.6	21.9	18.1	14.0	9.6	7.9	7.2	6.3

SOURCE: Congressional Budget Office.

NOTE: n.a. = not applicable; * = less than 0.05 percent of GDP.

Summary Table 4.**CBO Baseline Budget Projections, Assuming That Discretionary Spending Equals CBO's Estimates of the Statutory Caps Through 2002 and Grows at the Rate of Inflation Thereafter (By fiscal year)**

	Actual 1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
In Billions of Dollars												
Revenues												
Individual income	879	945	986	1,026	1,068	1,112	1,162	1,217	1,275	1,339	1,407	1,480
Corporate income	185	189	189	187	190	194	200	208	216	225	233	242
Social insurance	612	653	684	714	742	770	808	842	878	913	954	998
Other	<u>151</u>	<u>158</u>	<u>158</u>	<u>169</u>	<u>177</u>	<u>187</u>	<u>192</u>	<u>198</u>	<u>202</u>	<u>210</u>	<u>218</u>	<u>226</u>
Total	1,827	1,945	2,016	2,096	2,177	2,263	2,361	2,465	2,572	2,686	2,813	2,946
On-budget	1,383	1,465	1,515	1,571	1,630	1,693	1,764	1,843	1,923	2,010	2,106	2,208
Off-budget	444	480	502	525	547	570	597	623	649	676	707	738
Outlays												
Discretionary spending	575	603	578	571	585	600	615	630	646	662	679	696
Mandatory spending	977	1,020	1,071	1,119	1,182	1,249	1,329	1,385	1,460	1,550	1,643	1,744
Offsetting receipts	-78	-79	-85	-91	-94	-93	-98	-103	-108	-113	-119	-125
Net interest	230	224	217	204	183	162	139	115	92	77	72	68
Proceeds from investing excess cash	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>-2</u>	<u>-16</u>	<u>-41</u>	<u>-70</u>
Total	1,703	1,769	1,781	1,802	1,856	1,918	1,985	2,027	2,087	2,161	2,234	2,313
On-budget	1,382	1,442	1,446	1,460	1,504	1,557	1,613	1,644	1,692	1,752	1,809	1,870
Off-budget	321	327	336	343	352	361	372	384	396	409	425	443
Surplus	124	176	235	294	321	345	376	438	485	526	579	633
On-budget	1	23	69	112	126	136	151	199	231	258	298	339
Off-budget	124	153	166	182	195	209	225	239	254	268	281	295
Debt Held by the Public	3,633	3,455	3,234	2,954	2,647	2,314	1,949	1,522	1,142	1,078	1,016	941
As a Percentage of GDP												
Revenues												
Individual income	9.6	9.9	9.8	9.8	9.7	9.7	9.7	9.8	9.8	9.9	9.9	10.0
Corporate income	2.0	2.0	1.9	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.6
Social insurance	6.7	6.8	6.8	6.8	6.8	6.7	6.8	6.8	6.8	6.7	6.7	6.7
Other	<u>1.7</u>	<u>1.6</u>	<u>1.6</u>	<u>1.6</u>	<u>1.6</u>	<u>1.6</u>	<u>1.6</u>	<u>1.6</u>	<u>1.6</u>	<u>1.5</u>	<u>1.5</u>	<u>1.5</u>
Total	20.0	20.3	20.1	20.0	19.9	19.8	19.8	19.8	19.8	19.8	19.8	19.8
On-budget	15.2	15.3	15.1	15.0	14.9	14.8	14.8	14.8	14.8	14.8	14.8	14.9
Off-budget	4.9	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Outlays												
Discretionary spending	6.3	6.3	5.8	5.4	5.3	5.3	5.2	5.1	5.0	4.9	4.8	4.7
Mandatory spending	10.7	10.6	10.7	10.7	10.8	10.9	11.1	11.1	11.2	11.4	11.6	11.7
Offsetting receipts	-0.9	-0.8	-0.8	-0.9	-0.9	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8
Net interest	2.5	2.3	2.2	1.9	1.7	1.4	1.2	0.9	0.7	0.6	0.5	0.5
Proceeds from investing excess cash	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>*</u>	<u>-0.1</u>	<u>-0.3</u>	<u>-0.5</u>
Total	18.7	18.5	17.7	17.2	16.9	16.8	16.6	16.3	16.0	15.9	15.7	15.6
On-budget	15.2	15.1	14.4	13.9	13.7	13.6	13.5	13.2	13.0	12.9	12.7	12.6
Off-budget	3.5	3.4	3.3	3.3	3.2	3.2	3.1	3.1	3.0	3.0	3.0	3.0
Surplus	1.4	1.8	2.3	2.8	2.9	3.0	3.2	3.5	3.7	3.9	4.1	4.3
On-budget	*	0.2	0.7	1.1	1.1	1.2	1.3	1.6	1.8	1.9	2.1	2.3
Off-budget	1.4	1.6	1.7	1.7	1.8	1.8	1.9	1.9	2.0	2.0	2.0	2.0
Debt Held by the Public	39.9	36.1	32.2	28.1	24.2	20.3	16.3	12.2	8.8	7.9	7.2	6.3

SOURCE: Congressional Budget Office.

NOTE: n.a. = not applicable; * = less than 0.05 percent of GDP.

in which the growth of revenues has outstripped the growth of gross domestic product. Revenues are expected to grow more slowly than GDP through 2004 and then at about the same rate as GDP through 2010. In that year, revenues are projected to be \$2.9 trillion, or about 19.8 percent of GDP.

Although revenues will continue to grow, CBO expects the rate of growth to slow from the rapid pace of the past few years. From 1994 to 1998, revenues rose at an average rate of 8.3 percent a year, much

faster than GDP. Consequently, revenues as a percentage of GDP increased from 18.1 percent in 1994 to 19.9 percent in 1998. Although revenue growth slowed to 6.1 percent in 1999, it still exceeded GDP growth and boosted the ratio of receipts to GDP to a postwar high of 20 percent.

In CBO's forecast, receipts will increase slightly faster this year (6.4 percent) than in 1999. They will also grow faster than GDP, pushing the ratio of revenues to GDP to 20.3 percent, which is expected to

Summary Table 5.
Changes in CBO Projections of the Surplus Since July 1999, Under the Capped Baseline
(By fiscal year, in billions of dollars)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Total, 2000- 2009
July Baseline Total Surplus ^a	161	193	246	247	266	286	334	364	385	413	n.a.
Changes											
Legislative											
Revenues	3	-6	-8	-2	-2	-1	-1	*	*	*	-18
Outlays ^b	-33	-11	-9	-8	-7	-7	-8	-8	-9	-9	-109
Subtotal	-30	-17	-18	-10	-9	-8	-8	-9	-9	-10	-127
Economic											
Revenues	23	41	52	54	53	53	54	56	60	65	510
Outlays ^b	2	-1	-3	1	8	13	19	24	30	36	130
Subtotal	25	40	49	55	61	66	74	80	89	101	640
Technical											
Revenues	14	12	8	9	13	14	15	16	18	22	141
Outlays ^b	6	7	8	20	14	19	23	34	43	51	225
Subtotal	20	19	16	28	27	33	38	50	61	74	366
Total Changes	15	42	47	73	79	90	104	121	141	166	879
January Baseline Total Surplus	176	235	294	321	345	376	438	485	526	579	n.a.
Memorandum:											
Total Change in Revenues	40	46	51	60	64	66	69	71	77	88	634
Total Change in Outlays ^b	-25	-4	-4	13	15	24	35	50	64	78	245

SOURCE: Congressional Budget Office.

NOTE: n.a. = not applicable; * = less than \$500 million.

a. Assumes that discretionary spending equals CBO's estimates of the statutory caps through 2002 and grows at the rate of inflation thereafter.

b. Increases in outlays are shown with a negative sign because they reduce surpluses.

become the postwar peak. Beginning next year, however, CBO expects receipts to grow by roughly 4 percent a year through 2004. That rate is projected to rise to about 4.5 percent a year between 2005 and 2010. Although GDP will grow faster than receipts during that period, on average, the ratio of receipts to GDP will stay close to its peak, remaining at 19.8 percent.

Individual income tax receipts—bolstered primarily by higher realizations of capital gains, growth in real incomes, and especially rapid growth in income among high-income taxpayers—fueled the rapid rise in revenues of the past few years. Those receipts are also an important contributor to the slower growth of revenues projected for the next few years. Higher realizations of capital gains stemmed largely from the sharp rise in stock prices. Effective tax rates rose because an increasing number of taxpayers fell into the high-income category and were therefore taxed at higher marginal rates. Furthermore, those taxpayers experienced higher-than-average growth in income. None of those sources of rapid growth in revenues are expected to persist indefinitely. As they play smaller roles in boosting receipts, revenue growth is projected to slow.

Outlay Projections for 2000 Through 2010

CBO expects federal spending to total \$1.8 trillion in fiscal year 2000. Under current policies, that figure is projected to rise to between \$2.2 trillion and \$2.5 trillion by 2010, depending on the path assumed for discretionary spending.

Federal spending as a percentage of the economy declines from its current level under all three of CBO's alternatives for discretionary spending. Last year, federal outlays totaled just under 19 percent of GDP. In 2000, they will drop further, to about 18.5 percent. Over the next decade, CBO estimates, outlays will continue to fall slowly, reaching between 15.1 percent and 16.5 percent of GDP in 2010, depending on which assumptions are used.

Within the overall picture, the mix of federal spending has changed significantly over time. Today,

the government spends more on entitlement programs and less on discretionary programs as a share of GDP than it did in the past. Spending for entitlements and other mandatory programs (including offsetting receipts) rose from 4.9 percent of GDP in 1962 to 9.9 percent in 1999, while discretionary spending declined from 12.7 percent of GDP to 6.3 percent.

That trend continues in CBO's baseline projections. By 2010, mandatory spending (including offsetting receipts) is expected to reach 10.9 percent of GDP, as discretionary spending falls to between 4.2 percent and 5.3 percent. The growth of mandatory spending—at a projected rate of 5.6 percent a year—will be fueled by the two major health care programs, Medicare and Medicaid, which are projected to grow at average annual rates of 6.9 percent and 8.6 percent, respectively. Those growth rates are faster than the ones experienced in the past three years but slower than those of the early 1990s.

Discretionary spending is projected to increase at various rates from 2000 to 2010: the inflated baseline shows growth averaging 2.7 percent a year; the freeze baseline, 0.3 percent; and the capped baseline, 1.4 percent. Although total discretionary spending was virtually unchanged between 1991 and 1996, nondefense discretionary spending grew by 4.7 percent annually, while defense spending dropped by 3.6 percent annually. Over the following three years, nondefense spending increased by 3.8 percent, on average, and defense spending by 1.2 percent, leading to an average increase of 2.5 percent a year for total discretionary spending.

As a whole, federal outlays (other than net interest outlays) are projected to rise by between 3.5 percent and 4.5 percent a year during the next decade (depending on which variation of the baseline is used). By comparison, total noninterest outlays grew at an annual rate of 3.4 percent over the 1991-1999 period.

Under each of the alternatives for discretionary spending, the Treasury would have enough cash on hand sometime between 2007 and 2009 to retire all of the federal debt held by the public. However, because some outstanding debt will not be available for repurchase, the Treasury would not be able to devote all such funds to that purpose. CBO's baseline simply assumes that the Treasury would invest all of its ex-

cess cash at an interest rate equal to the average rate projected for Treasury bills and notes and would receive dividend or interest earnings from those investments.

The Economic Outlook

In 1999, the U.S. economy continued to expand far beyond expectations—yet without any meaningful acceleration in the underlying rate of inflation. Most analysts expect the economy's growth to remain strong but to slow at least moderately from the 4.3 percent annual rate of the past three years.

Changes Since July

CBO's current economic outlook is more optimistic about the prospects for real growth than the one reported last July. Compared with the July projections, growth of real GDP and labor productivity is significantly higher, inflation as measured by the consumer price index (CPI) is unchanged, and interest rates are slightly higher (see Summary Table 6). Private-sector assessments of the economy's recent behavior reach the same conclusion—that the sustainable trends in the growth of labor productivity and real GDP are higher than previously thought possible.

In CBO's current projections, real GDP grows for the next 10 years at an average annual rate that is 0.4 percentage points higher than was projected in July. Several factors account for that increase: 0.2 percentage points stem from a reassessment of how much of the recent surge in productivity will persist; slightly less than 0.1 percentage point results from a change in the projected growth of the labor force; and the rest reflects revisions in the measurement of real GDP.

Compared with real GDP growth, the growth of nominal GDP and the categories of income that are important for predicting revenues (corporate profits and wages and salaries) did not change as much from the July projections. The reason is largely that CBO's current projection of the growth of the GDP price in-

dex is lower. Furthermore, revisions to the historical data—along with revised outlooks for depreciation, net investment income from abroad, and corporate debt-service costs—have also reduced the projected growth of those income categories relative to the growth of GDP.

Recent Economic Performance

The economy has performed exceptionally well for several years, combining rapid growth and very low unemployment with declining inflation. Since 1996, the growth of real GDP has averaged better than 4 percent, compared with an average of about 3 percent since 1973. Because of those four years of rapid growth, the unemployment rate has fallen to 4.1 percent, its lowest level since January 1970. CPI inflation, excluding food and energy prices, had been running at about 3 percent per year earlier in the decade but was roughly 2 percent over the past year.

Much of the recent good news can be attributed to a surge in productivity growth, which has allowed the economy to grow faster without raising the rate of inflation. Low import and (until recently) oil prices, plus a number of other favorable but probably transitory developments, have also helped suppress inflation. However, domestic demand grew even faster than productivity—boosting employment, tightening labor markets, and raising concerns that recent growth rates may not be sustainable without sparking a rise in inflation.

The Forecast for 2000 and 2001

The economy retains considerable forward momentum, but at some point, a slowdown from the recent blistering pace seems inevitable. If tight labor markets push up labor costs, the best news about price inflation may be in the past. Unless a faster rise in labor costs was offset by continued increases in productivity growth, consumer prices could move upward. Recovery in foreign economies could add to those inflationary pressures by boosting commodity prices and by strengthening foreign currencies relative to the dollar, which would raise import prices.

Summary Table 6.
Comparison of CBO Economic Projections for Calendar Years 2000-2010

	Estimated 1999	Forecast		Projected								
		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Nominal GDP												
(Billions of dollars)												
January 2000	9,235	9,692	10,154	10,610	11,069	11,544	12,054	12,589	13,148	13,734	14,362	15,024
July 1999	8,964	9,351	9,751	10,159	10,583	11,027	11,508	12,017	12,554	13,113	13,695	n.a.
Nominal GDP												
(Percentage change)												
January 2000	5.4	5.0	4.8	4.5	4.3	4.3	4.4	4.4	4.4	4.5	4.6	4.6
July 1999	5.3	4.3	4.3	4.2	4.2	4.2	4.4	4.4	4.5	4.5	4.4	n.a.
Real GDP^a												
(Percentage change)												
January 2000	3.9	3.3	3.1	2.8	2.6	2.6	2.7	2.7	2.7	2.7	2.9	2.9
July 1999	4.0	2.4	2.4	2.3	2.3	2.3	2.5	2.5	2.5	2.5	2.5	n.a.
GDP Price Index^b												
(Percentage change)												
January 2000	1.4	1.6	1.6	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
July 1999	1.3	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	n.a.
Consumer Price Index^c												
(Percentage change)												
January 2000	2.2	2.5	2.4	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
July 1999	2.2	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	n.a.
Unemployment Rate												
(Percent)												
January 2000	4.2	4.1	4.2	4.4	4.7	4.8	5.0	5.0	5.1	5.2	5.2	5.2
July 1999	4.2	4.3	4.6	4.9	5.1	5.3	5.4	5.5	5.5	5.5	5.5	n.a.
Three-Month Treasury												
Bill Rate (Percent)												
January 2000	4.6	5.4	5.6	5.3	4.9	4.8	4.8	4.8	4.8	4.8	4.8	4.8
July 1999	4.6	5.0	4.6	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	n.a.
Ten-Year Treasury												
Note Rate (Percent)												
January 2000	5.6	6.3	6.4	6.1	5.8	5.7	5.7	5.7	5.7	5.7	5.7	5.7
July 1999	5.6	5.9	5.5	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	n.a.
Tax Bases												
(Billions of dollars)												
Corporate profits ^d												
January 2000	840	829	833	829	839	860	885	919	954	991	1,028	1,060
July 1999	724	687	725	758	783	814	844	880	915	950	982	n.a.
Wages and salaries												
January 2000	4,475	4,732	4,959	5,183	5,408	5,641	5,890	6,150	6,422	6,706	7,009	7,328
July 1999	4,410	4,632	4,810	4,995	5,207	5,431	5,670	5,922	6,187	6,463	6,751	n.a.

SOURCES: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis; Department of Labor, Bureau of Labor Statistics; Federal Reserve Board.

NOTES: Percentage changes are year over year. The projections for nominal GDP and the tax bases are not comparable because of definitional changes in the national income and product accounts (see Box 2-1 on page 38).

n.a. = not applicable.

- a. Based on chained 1996 dollars.
- b. The GDP price index is virtually the same as the implicit GDP deflator.
- c. The consumer price index for all urban consumers.
- d. Corporate profits are book profits.

The Federal Reserve has already responded to the threat of accelerating inflation by increasing the federal funds rate by 0.75 percentage points since June. Although those rate hikes may diminish the risk of inflation in the near term, financial markets seem convinced that further increases will occur this year.

For the next two years, CBO forecasts real GDP growth of about 3 percent, on average, and a slight rise in the underlying rate of inflation. That outlook would not cause the unemployment rate to change much in 2000 or 2001 from its current low level. The core CPI inflation rate (excluding food and energy prices) is expected to edge up slightly over the next two years from its recent pace of 2.1 percent.

In CBO's forecast, short-term interest rates average 5.4 percent in 2000 and 5.6 percent in 2001. The forecast assumes that the Federal Reserve will boost the federal funds rate by 0.5 percentage points during the first half of 2000 (in early January, financial markets expected at least that large an increase). Thus, the interest rate on three-month Treasury bills is forecast to reach 5.6 percent by midyear and remain there through 2001. The rate on 10-year Treasury notes is forecast to average 6.3 percent in 2000 and 6.4 percent in 2001.

Projections for 2002 Through 2010

CBO projects that real GDP will grow at an average annual rate of 2.8 percent during the 2000-2010 period. That growth compares with the slightly higher growth of 3.1 percent for potential output. Since the current estimated level of real GDP exceeds its potential level, actual GDP must grow at a slower pace than potential GDP to close the gap.

CPI inflation averages 2.5 percent a year after 2001 in CBO's projections, and the unemployment rate averages 5.0 percent. Short- and long-term interest rates are projected to average 4.8 percent and 5.7 percent, respectively, during that period.

Uncertainty of the Projections

CBO's baseline projections represent the midrange of possible outcomes for the economy and the budget, assuming that current policies are not changed. Actual budgetary outcomes, however, could be considerably different from those projections. Economic performance and other assumptions that deviate from CBO's baseline will surely lead to results that diverge from the numbers presented in this report. Policy changes will also occur that will alter outlays and revenues; CBO's projections do not attempt to take such changes into account.

Experience shows that although CBO's projection of the surplus for the coming fiscal year is likely to be within 1 percent of GDP in most cases, discrepancies can become more substantial over a five-year horizon. CBO's 10-year projections have only been made since 1992, so it is too soon to assess their accuracy. But 10-year projections are likely to be less accurate than five-year projections.

Many observers believe that a major structural change has taken place in the economy, and that belief influences CBO's projections. However, any transition to a "new economy" would have occurred only in the past few years, which means that little data about it are available from which to make projections for the next decade. Moreover, those data are insufficient to say for sure whether a structural shift has occurred or whether the economy has merely deviated temporarily from its underlying trends, as it has many times in the past. Under those circumstances, projecting the economy and the budget is even more uncertain than usual.

To illustrate the possible effects of differences from the baseline assumptions, CBO has produced budget projections under two alternative scenarios that make different assumptions. One (the optimistic scenario) assumes that the robust performance of the past few years will continue indefinitely and that Medicare and Medicaid spending will grow at a rate 1 percent-

age point slower than in the baseline. The other (the pessimistic scenario) assumes that the economy has simply experienced a temporary divergence from stable, long-term trends and will soon return to those trends—including even faster growth in Medicare and Medicaid. The projections that result from those two scenarios suggest a very wide range of possible outcomes for the budget: for example, the total surplus or deficit in 2010 could deviate from the baseline projections by \$700 billion to \$800 billion.

Under the assumptions of the optimistic scenario, the budget outlook would improve dramatically. If discretionary spending grew at the rate of inflation but there was no other action to cut taxes or increase spending, the annual on-budget surplus under that scenario would exceed \$800 billion by the end of the de-

cade, and the total budget surplus would exceed \$1.1 trillion. Projected surpluses that large would imply that the federal government was holding huge amounts of nonfederal assets (more than \$4 trillion). If discretionary spending was held to the lower levels implied by the statutory caps through 2002 or was frozen at the level enacted for 2000, surpluses would be even larger.

Under the pessimistic scenario, the on-budget surpluses that CBO is projecting in its baseline would never emerge. Instead, the on-budget deficit would rise to more than \$290 billion a year by the end of the decade. The total budget deficit would be smaller; if discretionary spending was constrained for the whole decade to the level enacted for 2000, that deficit would stay under \$100 billion.

The Budget Outlook

The Congressional Budget Office (CBO) projects a bright outlook for the federal budget over the next several years, assuming that current policies are maintained. That outlook builds on the positive budgetary outcome for 1999, when total federal revenues exceeded total federal outlays by about \$124 billion and produced a small on-budget surplus of \$704 million—the first such surplus since 1960.

In 2000, CBO estimates that the total budget surplus will reach \$176 billion, comprising a \$153 billion surplus in off-budget accounts (mainly the Social Security trust funds, whose inflows and outflows are accounted for separately from those of the rest of the government) and a \$23 billion surplus in on-budget accounts.¹ That on-budget surplus would be the largest ever in nominal dollars and, measured as a percentage of gross domestic product (GDP), the largest since 1957.

Extrapolating from current policies, CBO projects growing surpluses over the next decade. Depending on the path of discretionary spending, total surpluses could reach from 3 percent to 5 percent of GDP by 2010, and on-budget surpluses could range between 1 percent and 3 percent of GDP. Over the next

five years, CBO estimates that total surpluses would accumulate to between \$1.1 trillion and \$1.6 trillion; totals could climb to between \$3.2 trillion and \$4.2 trillion over the coming decade (see Table 1-1). Cumulatively, on-budget surpluses would range from roughly \$148 billion to \$594 billion over the next five years and from \$838 billion to \$1.9 trillion over the 2001-2010 period.

CBO's latest budget outlook is considerably more favorable than the one described in its July 1999 report, *The Economic and Budget Outlook: An Update*. Since then, CBO estimates that the Congress and the President have enacted legislation that, over the 2000-2009 period, increases projected spending by about \$109 billion and reduces projected revenues by \$18 billion compared with CBO's July baseline. Yet the effects of those legislative actions have been more than offset by changes to estimates of revenues and outlays that have boosted projected surpluses. Most of the improvement in the budget outlook stems from the economy's continuing strength, which will lead to higher revenues. Lower levels of mandatory spending, including smaller net interest payments on the federal debt as a result of the larger surpluses, also contribute to the currently bright budgetary picture. Based on those factors, CBO's estimate of the total surplus in 2000 (\$176 billion) shows a net increase of \$15 billion over its July estimate.

Over the 2000-2009 period, projected revenues are about \$634 billion higher than the amount reported last July, and mandatory spending is \$288 billion lower. However, comparisons of CBO's new esti-

1. Legislation in 1985 gave the Social Security trust funds (Old-Age and Survivors Insurance and Disability Insurance) off-budget status. Legislation in 1989 did the same for the much smaller net outlays of the Postal Service. However, total government revenues, spending, surpluses, and deficits, which include off-budget activities, provide the most complete perspective on the government's budgetary operations.

Table 1-1.

CBO Projections of the Total Surplus Under Alternative Versions of the Baseline, Fiscal Years 2001-2005 and 2001-2010 (In billions of dollars)

Surplus	Total, 2001-2005			Total, 2001-2010		
	Inflated Appropriations ^a	Frozen Appropriations ^b	Capped Appropriations ^c	Inflated Appropriations ^a	Frozen Appropriations ^b	Capped Appropriations ^c
On-Budget	148	379	594	838	1,858	1,918
Off-Budget ^d	<u>978</u>	<u>979</u>	<u>978</u>	<u>2,314</u>	<u>2,320</u>	<u>2,314</u>
Total	1,126	1,358	1,571	3,152	4,179	4,232

SOURCE: Congressional Budget Office.

- a. After adjustment for advance appropriations, assumes that discretionary spending grows at the rate of inflation after 2000.
- b. After adjustment for advance appropriations, assumes that discretionary spending is frozen at the level enacted for 2000.
- c. Assumes that discretionary spending equals CBO's estimates of the statutory caps through 2002 and grows at the rate of inflation thereafter.
- d. Off-budget surpluses are higher under the frozen version of the baseline because discretionary spending for Social Security administrative costs (which are off-budget) is maintained at the 2000 level throughout the period, whereas that spending is adjusted for inflation under the inflated and capped versions beginning in 2001 and 2003, respectively.

mates of discretionary spending with those provided last July vary depending on the assumptions made about the future path of such spending.

Three Perspectives on Discretionary Spending

The Congressional Budget and Impoundment Control Act of 1974 (the Congressional Budget Act) requires CBO to issue an annual report that provides projections of budget authority, outlays, revenues, the surplus or deficit, tax expenditures, entitlement authority, and credit authority. In this annual report, CBO assumes that the economy performs as expected (see Chapter 2 for the economic outlook) and that current policies affecting federal revenues and mandatory spending continue unchanged. But developing assumptions about the path of discretionary spending is more difficult. The funding for such programs is set annually. Furthermore, any assumptions about future appropriations—especially for a 10-year period—are somewhat arbitrary.

This year, there appears to be even more uncertainty than usual about which path discretionary spending will take. To give a fuller picture of how variations in funding levels for those programs affect the federal government's budgetary prospects, this *Budget and Economic Outlook* presents three versions of CBO's baseline, each of which uses an alternative assumption about discretionary spending. The baseline variations are identical in all other aspects but two: debt-service costs, which vary with projected surpluses, and—since surpluses are used to pay down debt—the outstanding government debt that remains. Each variation incorporates assumptions that the Congress has used in the past about the path of discretionary spending. In all three versions of the baseline, the fiscal outlook is for growing surpluses, both on- and off-budget (see Table 1-2).

The title of each baseline variation generally indicates its assumptions about discretionary spending:

- o *The "inflated" alternative* assumes that budget authority for discretionary spending grows at the rate of inflation each year after 2000. Under this variation, the real (inflation-adjusted) level of

Table 1-2.
CBO Projections Under Alternative Versions of the Baseline (By fiscal year, in billions of dollars)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Discretionary Spending Grows at the Rate of Inflation After 2000^a											
Revenues	1,945	2,016	2,096	2,177	2,263	2,361	2,465	2,572	2,686	2,813	2,946
Outlays											
Discretionary Spending	603	635	650	669	684	702	716	730	750	768	786
Mandatory Spending ^b	942	986	1,028	1,088	1,156	1,231	1,282	1,352	1,437	1,524	1,619
Net interest	224	218	209	194	177	160	142	122	101	80	68
Proceeds from investing excess cash	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>-3</u>	<u>-16</u>
Total	1,769	1,839	1,888	1,950	2,017	2,093	2,140	2,204	2,287	2,369	2,457
Surplus											
On-budget	23	11	26	31	37	43	86	115	131	162	195
Off-budget	<u>153</u>	<u>166</u>	<u>182</u>	<u>195</u>	<u>209</u>	<u>225</u>	<u>239</u>	<u>254</u>	<u>268</u>	<u>281</u>	<u>295</u>
Total	176	177	209	227	246	268	325	368	399	444	489
Memorandum:											
Surplus as a Percentage of GDP	1.8	1.8	2.0	2.1	2.2	2.2	2.6	2.8	2.9	3.1	3.3
Discretionary Spending Is Frozen at the Level Enacted for 2000^a											
Revenues	1,945	2,016	2,096	2,177	2,263	2,361	2,465	2,572	2,686	2,813	2,946
Outlays											
Discretionary Spending	603	624	628	627	624	625	623	620	622	621	621
Mandatory Spending ^b	942	986	1,028	1,088	1,156	1,231	1,282	1,352	1,437	1,524	1,619
Net interest	224	218	208	191	171	150	127	101	81	72	68
Proceeds from investing excess cash	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>-9</u>	<u>-33</u>	<u>-65</u>
Total	1,769	1,829	1,864	1,905	1,951	2,006	2,032	2,073	2,130	2,185	2,244
Surplus											
On-budget	23	22	50	76	102	129	194	245	288	346	407
Off-budget	<u>153</u>	<u>166</u>	<u>182</u>	<u>196</u>	<u>209</u>	<u>226</u>	<u>240</u>	<u>255</u>	<u>269</u>	<u>282</u>	<u>296</u>
Total	176	188	232	271	312	355	434	500	556	628	703
Memorandum:											
Surplus as a Percentage of GDP	1.8	1.9	2.2	2.5	2.7	3.0	3.5	3.8	4.1	4.4	4.7
Discretionary Spending Equals CBO's Estimates of the Statutory Caps Through 2002 and Grows at the Rate of Inflation Thereafter											
Revenues	1,945	2,016	2,096	2,177	2,263	2,361	2,465	2,572	2,686	2,813	2,946
Outlays											
Discretionary Spending	603	578	571	585	600	615	630	646	662	679	696
Mandatory Spending ^b	942	986	1,028	1,088	1,156	1,231	1,282	1,352	1,437	1,524	1,619
Net interest	224	217	204	183	162	139	115	92	77	72	68
Proceeds from investing excess cash	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>-2</u>	<u>-16</u>	<u>-41</u>	<u>-70</u>
Total	1,769	1,781	1,802	1,856	1,918	1,985	2,027	2,087	2,161	2,234	2,313
Surplus											
On-budget	23	69	112	126	136	151	199	231	258	298	339
Off-budget	<u>153</u>	<u>166</u>	<u>182</u>	<u>195</u>	<u>209</u>	<u>225</u>	<u>239</u>	<u>254</u>	<u>268</u>	<u>281</u>	<u>295</u>
Total	176	235	294	321	345	376	438	485	526	579	633
Memorandum:											
Surplus as a Percentage of GDP	1.8	2.3	2.8	2.9	3.0	3.2	3.5	3.7	3.9	4.1	4.3

SOURCE: Congressional Budget Office.

NOTE: n.a. = not applicable.

a. After adjustment for advance appropriations.

b. Net of offsetting receipts.

resources provided in the latest appropriation action for 2000 is maintained and added to advance appropriations enacted for 2001.² When such adjustments are made, CBO estimates on-budget surpluses of \$11 billion in 2001 and \$838 billion for the 2001-2010 period. Total budget surpluses, including Social Security, would reach \$177 billion in 2001 and \$3.2 trillion over the 10-year span.

- o *The "freeze" alternative* combines budget authority for discretionary spending enacted for 2000 with the advance appropriations enacted for 2001. This approach maintains that same nominal level of resources throughout the 2001-2010 period. Under the freeze alternative, CBO projects on-budget surpluses of \$22 billion in 2001 and \$1.9 trillion over the 10-year period. Total budget surpluses would rise to \$188 billion in 2001 and \$4.2 trillion over the decade.
- o *The "capped" alternative* assumes that discretionary spending equals CBO's estimates of the statutory caps through 2002 and grows at the rate of inflation thereafter. (In 1990, the Budget Enforcement Act, or BEA, first established limits on discretionary budget authority and outlays. Those caps have been revised and extended and are now in effect through 2002.) Under the assumptions of the capped baseline variation, CBO estimates on-budget surpluses of \$69 billion in 2001 and \$1.9 trillion in 2001 through 2010. Total budget surpluses would climb to \$235 billion in 2001 and \$4.2 trillion over the 10-year projection period.

Depending on the assumption used for discretionary spending, total projected budget surpluses vary by roughly a trillion dollars over the 2001-2010 period. Over the next five years, assuming that the caps are met would result in the least discretionary spending—\$2.9 trillion in outlays—compared with \$3.1 trillion and \$3.3 trillion when funding is frozen or inflated, respectively. Over 10 years, discretionary spending would be about the same under the capped and freeze baseline approaches (between \$6.2 trillion and \$6.3

trillion) compared with \$7.1 trillion when discretionary spending is assumed to grow with inflation.

CBO presents alternative projections of discretionary spending because recent appropriation action, which has resulted in large increases in the caps, indicates that those statutory limits are less accurate predictors of discretionary spending than they were in earlier years. Because the inflated baseline allocates the most resources to discretionary spending relative to the other approaches, it produces the lowest projections of the surplus. The freeze alternative includes discretionary spending that is initially higher than the caps (because the enacted level of spending in 2000 is higher than the caps for 2001 and 2002). Beginning in 2005, however, budget authority under the freeze baseline falls below the amounts in the capped approach (which inflates spending levels once the caps expire in 2002). Outlays under the freeze baseline exceed outlays under the capped approach until 2006. Surpluses also cross over: they are higher under the capped assumption through 2006, but beginning in 2007, surpluses are higher when discretionary spending is assumed to be frozen. Over the 10-year period, projected surpluses under the freeze variation are nearly identical to those estimated for the capped baseline.

Irrespective of which assumption about discretionary spending is used, debt held by the public would fall considerably before 2010. CBO assumes that a minimum level of debt would remain outstanding, however, because some bonds have long maturities and the Treasury would continue to issue some forms of nonmarketable debt—such as savings bonds—that are held by individuals, state and local governments, and other parties and that are not traded in the credit markets. Therefore, some debt would remain in public hands, even though the budget's projected surpluses would be sufficient to retire it fully. CBO's estimates assume that the government would receive dividend or interest earnings from investing the cash portion of the surplus that exceeded the amounts used to retire debt (see the later discussion on measures of the federal debt).

The choice of which discretionary spending assumption to incorporate into the baseline may have particular significance in coming years. Now that the budget is in balance, many policymakers have adopted

2. Box 1-2 on page 14 describes the treatment of advance appropriations under the inflated and freeze alternatives.

the new objective of “saving” the (off-budget) Social Security surpluses—using them to reduce debt held by the public. That target does not specify what should be done with the remaining on-budget surpluses, but it implies that they could be available each year to fund changes in policy. If part or all of the on-budget surpluses was used to support policy changes, debt-service costs would be higher (because outstanding debt would be higher than the projections had assumed). Thus, if policymakers did not reserve a portion of the projected on-budget surpluses for additional debt-service costs, they would face on-budget deficits and, as in the past, return to using part of the projected Social Security surpluses for purposes other than Social Security.

If lawmakers decided that on-budget surpluses should be used for spending increases or tax reductions beginning in 2001, how much money would be available? Over the 2001-2010 period, those amounts would total:

- o Under the inflated variation of the baseline, \$706 billion for policy changes and \$132 billion for additional debt service;
- o Under the freeze alternative, \$1,555 billion for policy changes and \$304 billion for additional debt service; and
- o Under the capped baseline, \$1,533 billion for policy changes and \$385 billion for additional debt service.

The effects on debt-service costs could vary, however, depending on when the policy changes were implemented.

Perspectives on Baseline Projections

Budget projections should not be viewed in isolation. Changes in policy and in economic and technical factors affect them and cannot be foreseen with great precision. Thus, any projection is uncertain. That state-

ment is particularly true as the nation braces for the upcoming demographic impact of an aging population. In CBO's current projections, that impact and the changes it will bring to the economy and the budget are largely invisible because they lie just beyond the 10-year projection horizon.

Ideally, baselines provide insight into the consequences of today's policies and serve as neutral benchmarks against which the Congress can consider potential changes during its annual deliberations on the budget. They are not, however, forecasts of future budgetary outcomes. There are no guarantees that the surpluses projected under any baseline will be realized. Rather, the projections presented in this report reflect CBO's best judgment about the economy's future course and how it and existing policies will affect federal revenues and spending.

Budgetary Outcomes Differ from Projections

Budgetary outcomes differ from baseline projections for two primary reasons. First, projections do not attempt to specify the changes that result from legislative activity or other shifts in policy. Second, economic activity and the effects of technical factors are difficult to predict accurately and are quite likely to vary from the assumptions included in the baseline. (Chapter 5 provides a more extensive discussion of the potential variability of budgetary outcomes.)

Although any projection must therefore be viewed with some reservations, longer-term projections warrant even more caution because they are more likely than shorter-term estimates to differ from eventual outcomes. Each year's projection builds on the projected level for the previous year. Consequently, the gap between projected and actual outcomes is likely to grow because differences between actual outcomes and baseline assumptions that arise early in the projection period can be amplified over time (see Figure 1-1). That means that CBO's estimates of surpluses for 2006 through 2010, which account for approximately two-thirds of the total surpluses projected for the 2001-2010 period, should be considered more uncertain than its estimates for 2001

through 2005. And, as Figure 1-1 illustrates, base-lines can be either overly optimistic (as in 1987) or overly pessimistic (as in 1994).

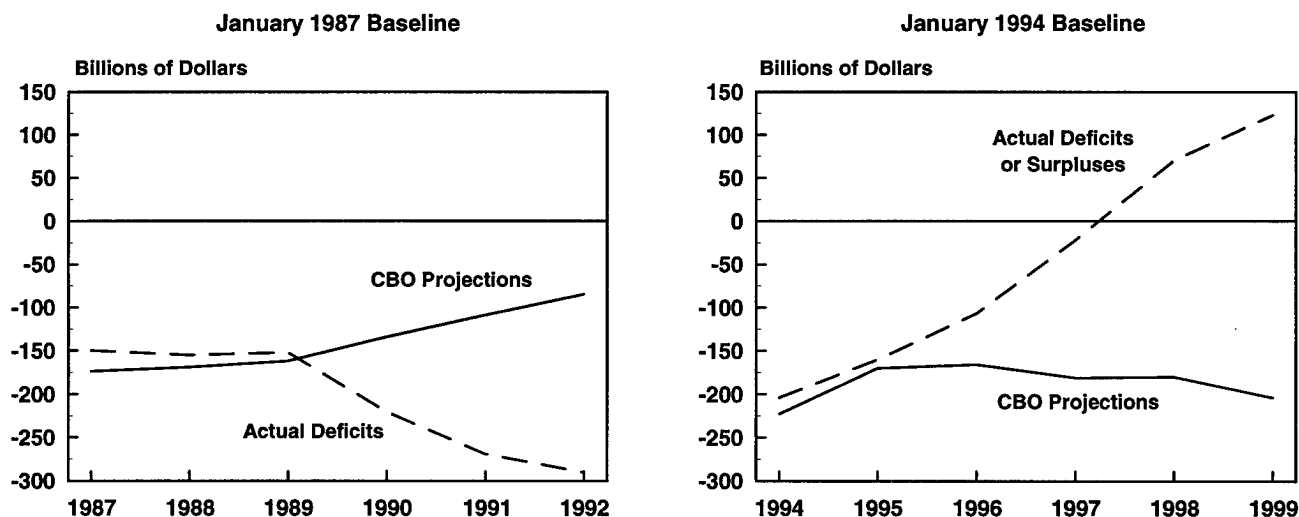
Over the long run, the performance of the economy can have a profound impact on budgetary outcomes. The economic assumptions underlying CBO's budget outlook form one possible scenario, but the economy could perform quite differently. More optimistic or more pessimistic assumptions would produce different levels of revenues and outlays than CBO currently estimates and, as a result, significantly different surpluses.

Assumptions about current policies, which CBO's projections incorporate, also affect budgetary outcomes. Recent history indicates that current policy toward discretionary spending, in particular, may be changing. Such spending has been subject to statutory spending limits, or caps, since 1991, and currently, as noted earlier, limits apply through 2002. Until 1998, when the budget recorded its first total surplus in almost 30 years, the Congress and the President generally accepted the restraint that the caps provided. But since then, they have enacted levels for discretionary spending that have been significantly greater than the amounts envisioned in the Balanced Budget Act of

1997 (BBA), which specified the most recent set of caps. (For more about discretionary spending caps, see Chapter 4.)

In addition to changing economic conditions and legislated policy changes, other factors can affect estimates of federal revenues and spending. For example, if a rising stock market encourages more investors to sell assets and realize capital gains, revenues may be higher than anticipated. Spending for Medicare, a substantial component of the budget, can be strongly affected by general trends in overall health spending, changes in technology and in the practice of medicine, federal decisions about the administration of the program, and beneficiaries' use of health services. Spending in the government's other major health care program, Medicaid, is affected by the same factors but faces additional influences: as a joint federal/state program, spending for Medicaid also depends on states' decisions about which potentially eligible populations they will serve and how aggressively they will conduct outreach activities to bring in eligible beneficiaries. In contrast, spending for agriculture programs depends on the weather, both in the United States and abroad, and on a variety of other factors that may affect the supply of and demand for agricultural products.

Figure 1-1.
CBO Baseline Projections Compared with Actual Deficits or Surpluses,
Fiscal Years 1987-1992 and 1994-1999



SOURCE: Congressional Budget Office.

Allocating the differences between projections and actual results to specific factors is not an exact science, and it is difficult to determine exactly why CBO's projections are sometimes too high or too low. Table 1-3 compares CBO's January 1990, 1993, and 1997 baseline projections with actual deficits or surpluses. (Those baselines were selected because the Congress and the President enacted major legislation in those years to reduce the deficit.) The table compares the deficits projected under a selected baseline with the actual deficits or surpluses and attributes the differences to changes in legislation, changes in economic factors, and other technical changes as determined by CBO. Once cost estimates are made, CBO does not reestimate the impact of enacted legislation because, even after the fact, the budgetary effect is difficult to identify. Consequently, any additional savings or costs that may result from policy changes show up as technical changes, and amounts attributed to legislation may be under- or overstated.

In the three baselines, the legislative changes contained in the BEA and the Omnibus Budget Reconciliation Act of 1993 (OBRA-93) made substantial contributions to lower deficits, but in each case, the effects that CBO attributed to economic and technical factors were much greater. The 1991 recession, growth in Medicare costs, and other technical factors made deficits worse and more than offset any fiscal improvements resulting from the BEA. By the time OBRA-93 was enacted, the economic recovery was well under way, although none of the baseline projections made at that time anticipated the recovery's strength. Thus, a review of the 1993-1998 period shows that changes in economic and technical factors came together with smaller improvements in the fiscal situation stemming from OBRA-93 to balance the budget in 1998. Yet in 1997, CBO's baseline, as well as that of the Office of Management and Budget (OMB), still projected deficits—and in the short run, the legislative changes contained in the BBA actually increased them. Changes resulting from economic and technical factors, however, more than compensated for those increases over the 1997-1999 time frame.

In sum, baseline projections can never anticipate all of the factors that will determine eventual budget surpluses or deficits. They can be a useful benchmark and help explain fiscal trends, but their limitations—particularly those of longer-term projections—

should be kept firmly in mind. Ultimately, legislative action will determine only a portion of any budgetary outcome; over the past 10 years, economic and technical factors have explained much more of the decline in deficits and the realization of surpluses. And those factors, which cannot be accurately foreseen and are largely beyond the control of the Congress and the President, will either reinforce a policy's objective and move in the direction that policymakers desire, as they did in 1993 and 1997, or take the opposite path, as they did in 1990.

Budgetary Challenges Remain in the Long Term

Large and growing surpluses, if realized, would help the country begin to address the longer-term budgetary pressures associated with an aging population. A strong and growing economy will ease some of those pressures. Budget surpluses reduce government borrowing requirements, free up resources for other, potentially more productive uses, and thereby increase national saving. Saving promotes economic growth, and growth will make future obligations—both public and private—easier to meet. CBO's projections for the next 10 years, assuming that the economy performs as projected and policies do not change, show surpluses that would significantly reduce debt held by the public and the interest costs associated with borrowing.

But even substantial surpluses over the next several years would not eliminate the budgetary tensions that coming demographic changes and rising health care costs will bring. The post-World War II baby-boom generation will begin leaving the workforce toward the end of CBO's current 10-year projection period. By 2030, under current policies, spending for Social Security, Medicare, and Medicaid is expected to rise by over 75 percent as a share of GDP and will represent more than two-thirds of federal spending compared with about 40 percent today. Surpluses—in addition to their benefits to the economy—expand the range of options for addressing issues related to the aging population. If the projected surpluses do not materialize, the approaching budgetary pressures will intensify as a result of higher debt-service costs. More important, if surpluses are realized and are used to pay

Table 1-3.**CBO's January 1990, 1993, and 1997 Baseline Projections Compared with Actual Deficits or Surpluses (By fiscal year, in billions of dollars)**

	Actual Deficit (-) or Surplus	CBO Baseline Deficit	Cause of Differences			Total Difference
			Legislative Changes	Economic Changes	Technical Changes	
January 1990 Baseline						
1990	-221	-138	0	1	-84	-83
1991	-270	-138	29	-64	-97	-132
1992	-290	-135	28	-96	-87	-155
1993	-255	-141	73	-92	-95	-114
1994	-203	-130	143	-68	-149	-74
1995	-164	-118	<u>200</u>	<u>-83</u>	<u>-163</u>	-46
Absolute Difference ^a	n.a.	n.a.	473	403	676	1,552
Percentage of Total Absolute Difference	n.a.	n.a.	30	26	44	100
January 1993 Baseline						
1993	-255	-310	-4	0	59	55
1994	-203	-291	20	21	47	88
1995	-164	-284	46	13	61	120
1996	-108	-287	94	40	45	179
1997	-22	-319	139	65	93	297
1998	69	-357	<u>130</u>	<u>127</u>	<u>169</u>	426
Absolute Difference ^a	n.a.	n.a.	433	267	474	1,174
Percentage of Total Absolute Difference	n.a.	n.a.	37	23	40	100
January 1997 Baseline						
1997	-22	-124	2	23	78	102
1998	69	-120	-21	72	137	189
1999	123	-147	<u>-19</u>	<u>131</u>	<u>159</u>	270
Absolute Difference ^a	n.a.	n.a.	42	203	296	543
Percentage of Total Absolute Difference	n.a.	n.a.	8	38	55	100

SOURCE: Congressional Budget Office.

NOTE: n.a. = not applicable.

a. The absolute difference ignores arithmetic signs and thus indicates the distance between projected and actual values without regard to whether individual projections are overestimates or underestimates.

down debt, they will enhance the long-run prospects of the economy and help ease the burden on active workers of supporting larger numbers of retirees.

The Baseline Concept

Budgetary baselines provide the Congress with information about what the fiscal future might look like under a given set of assumptions that includes no changes in policy. Baselines are intended as a neutral reference point for measuring what might happen if policy changed. OMB even cautioned in its first baseline report, "The current services estimates [OMB's baseline] are neither recommended amounts nor estimates as to what the figures . . . will actually turn out to be."³ But because baselines provide a starting place for annual budget deliberations, they can have a strong influence on the debate. The same proposal can appear to increase or decrease spending or revenues depending on the particular baseline used as a benchmark.

Over CBO's history, the baseline concept has evolved. Initially, the President's budget offered the only glimpse of future federal revenues and spending, and its projections reflected the President's policies. Since 1976, CBO has provided another viewpoint, resting its baseline estimates on current policies for mandatory programs and assuming the continuation of existing tax laws.

CBO's decision to present alternative assumptions about discretionary spending for the baseline projections contained in this report is motivated by its responsibility to inform the Congress about projected levels of federal resources and the commitments against them under current policy. But how should current policy be characterized, given recent legislative action? Two issues related to discretionary spending are involved. The first is whether the baseline should reflect adjustments for inflation for particular programs when such adjustments are not specifically required by law. The second is whether the statutory

caps on discretionary spending represent current policy.

Should Projections of Discretionary Spending Be Adjusted for Inflation?

Among the questions about baseline projections that CBO and OMB have had to wrestle with over the years is whether to include adjustments for inflation in projections of outlays if such adjustments are not explicitly required by law. The Congressional Budget Act required CBO and OMB to produce baselines but did not contain explicit guidance about what assumptions those organizations should use to do so. As a result, CBO and OMB have had to decide how best to meet the statutory requirement.

Over the years, CBO and OMB have had different views about how to produce baselines. Initially, OMB did not adjust its current-services estimates for the effects of inflation if no law explicitly required such adjustment. CBO, in its first baseline report, provided two scenarios: in one variation of the baseline, projections of spending were inflated for all programs; in the other, a "programmatic" approach, projections attempted to represent the cost of continuing the programs' current levels of activity, which sometimes but not always meant preserving real resources (providing adjustments for inflation) for most discretionary programs. Between 1976 and 1985, both OMB and CBO published programmatic baselines.

Passage of the Balanced Budget and Emergency Deficit Control Act of 1985 (the Deficit Control Act) standardized the approach to projecting spending for discretionary programs in the baseline. To enforce its targets for deficit reduction, the act established a process called sequestration—uniform, across-the-board cuts in spending. Calculating the sequestration percentage (the percentage of the cut) requires a baseline projection of what spending would be in the absence of sequestration. The act specified that the baseline should project budget authority and outlays for discretionary programs on the basis of the current year's

3. Office of Management and Budget, *Current Services Estimates for Fiscal Year 1977* (November 10, 1975), p. 5.

enacted spending level.⁴ An amendment to the act in 1987 added the requirement to adjust for inflation.⁵ Between 1985 and 1990, CBO's baseline calculations for those programs included such adjustments for inflation (as did OMB's).

The Budget Enforcement Act introduced caps on discretionary budget authority and outlays beginning in 1991. Although there have been exceptions, CBO's baselines since then have generally assumed that discretionary spending would be constrained by the caps and grow at the rate of inflation after the caps expired. (OMB has continued to publish current-services—or inflated—baselines.) CBO's projections of discretionary spending after adjusting for inflation have generally exceeded the caps but not always. (In CBO's May 1996 projections for discretionary spending, the 1997 level, after adjusting for inflation, was still below the statutory cap.)

Adjusting projections of discretionary spending for inflation may indicate the future resources needed to maintain those programs' current level of services or activities. But such adjustments do not reflect better management, technological innovation, or other potential improvements that might allow the government to provide the same level of program services but expend fewer financial resources in doing so. Furthermore, such projections do not reflect the discretionary nature of the inflation adjustments. The Congress determines its policy priorities annually and appropriates funding for them program by program. That process implies that in the baseline, spending for discretionary programs should be projected differently from entitlement spending. In the latter programs, laws explicitly protect benefit levels from erosion by inflation, and spending is designed to grow to reflect increases in the number of beneficiaries, the built-in expansion of benefits, and the greater use of services. Discretionary programs do not exhibit those features.

4. Those requirements were set forward in section 251 of the 1985 act. The BEA modified that section and renumbered it as section 257.

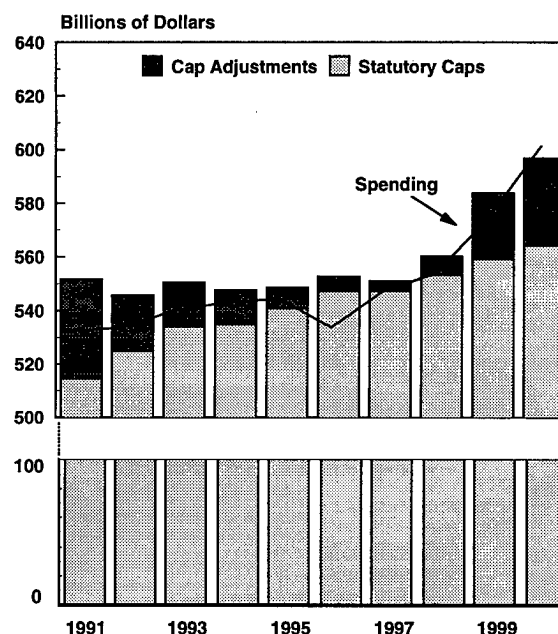
5. See the Balanced Budget and Emergency Deficit Control Reaffirmation Act of 1987 (Public Law 100-119).

Should the Baseline Assume Compliance with the Statutory Spending Caps?

Until recently, CBO's capped baseline reasonably approximated current policies (see Figure 1-2). Although it is impossible to determine what discretionary spending would have been had the caps not been in place, the limits appear to have been relatively effective in constraining such spending.

The caps, however, are not fixed amounts. The BEA allows the President to increase the caps to accommodate emergency requirements and certain other, smaller expenditures. Yet beyond requiring that the Congress and the President each designate appropriations as emergency requirements, the act does not spell out what an "emergency" constitutes. In 1991, OMB

Figure 1-2.
How Discretionary Spending Compares with the Statutory Caps and Their Adjustments, Fiscal Years 1991-2000



SOURCE: Congressional Budget Office.

defined an emergency requirement as “a necessary expenditure that is sudden, urgent, and unforeseen, and is not permanent.”⁶ Until recently, most emergency designations were generally consistent with that definition.

Between 1991 and 1998, annual adjustments to the caps on budget authority and outlays averaged \$7 billion and \$5 billion, respectively, excluding emergency funding related to Desert Storm in 1991 through 1993 (because the United States recovered those costs). Most of the emergency expenditures were directed toward natural disaster assistance and military operations in Bosnia and Kosovo. However, recent experience differs dramatically from that earlier period (see Box 1-1). In 1999 and in 2000 (to date), annual adjustments to the cap on budget authority average \$33 billion, and adjustments to the cap on outlays average \$28 billion.

As a result of such adjustments, between 1991 and 1998, actual outlays for discretionary spending were only 1 percent higher, on average, than the initial limits contained in the statute. (Actual outlays complied with the caps in those years because the caps were adjusted upward for additional, emergency spending.) Beginning in 1999, however, the statutory caps no longer provided the same level of restraint. Actual outlays in 1999 and estimated outlays for 2000 average almost 5 percent above the cap levels set by the Balanced Budget Act. The caps on outlays for 1999 and 2000 have been adjusted upward by \$25 billion to \$30 billion for emergency and other requirements. Largely as a result of such adjustments, CBO currently estimates that outlays in 2000 will be \$603 billion compared with the \$564 billion cap specified in the 1997 act.⁷

6. Office of Management and Budget, *Report on the Costs of Domestic and International Emergencies and on the Threats Posed by the Kuwaiti Oil Fires as Required by P.L. 102-55* (June 1991), p. ii.

7. At the end of the first session of the 106th Congress, CBO summarized the effects of legislative action, as measured on the basis of its July 1999 projections, in *The Budget for Fiscal Year 2000: An End-of-Session Summary* (December 2, 1999). CBO estimated that discretionary outlays in 2000 would total \$617 billion. Since then, CBO has lowered that estimate to reflect several changes: the reclassification of over \$8 billion for emergency farm assistance as manda-

Do the caps reflect current policy? The evidence is mixed. Caps on discretionary budget authority and outlays apply through 2002. In both 1999 and 2000, the Congress and the President have provided significantly more funding for discretionary programs than that specified by the caps in the BBA. Policymakers have not, however, repealed or completely disregarded the caps. Instead, their efforts to adhere to the caps through a variety of measures imply that spending would have been higher had the caps not been in place. (See Chapter 4 for a discussion of those measures.)

Shortcomings of Baselines

Like all mechanical approaches to developing baseline projections, the inflated and freeze variations have their shortcomings. Both approaches assume that policymakers will continue whatever discretionary spending was contained in the most recent appropriation acts, either with or without adjustment for inflation. In addition, those baselines include higher funding levels than their names might suggest because of their treatment of advance appropriations (see Box 1-2 on page 14).

The inflated and freeze variations of the baseline maintain funding for programs that have variable resource requirements in 2001 and beyond, even though that funding may not match a program's needs. For example, spending for the decennial census was too low in last year's baseline because it reflected the en-

tory spending; the reclassification of pay-date shifts and the 0.38 percent across-the-board rescission contained in the miscellaneous appropriation act (H.R. 3425) as reductions in discretionary spending (\$5 billion); and technical reestimates to outlays (\$2 billion). Under Congressional scorekeeping rules, changes in mandatory spending that are enacted through appropriation action are initially counted as discretionary spending but then are reclassified as mandatory spending in the subsequent baseline. Conversely, Public Law 106-113, An act making consolidated appropriations for the fiscal year ending September 30, 2000, and for other purposes (referred to in this report as the Consolidated Appropriations Act), required that the effects of H.R. 3425 be treated initially as mandatory spending, even though some provisions affected discretionary spending. Those changes have been reclassified as discretionary spending in the January 2000 baseline.

Box 1-1. Changes in Emergency Spending

Under the Budget Enforcement Act of 1990 (BEA), new spending designated by the President and the Congress as an emergency is effectively exempt from the BEA's limits, or caps, on discretionary spending and from pay-as-you-go requirements for mandatory programs and revenues. Nearly all emergency spending is provided in annual appropriation acts; once the spending has been enacted, the caps are adjusted upward by the same amount. In designating emergency appropriations under the BEA, lawmakers are not bound by any statutory definition and thus may designate emergency funds for any purpose. Until recently, the Congress and the President used the emergency designation mainly to provide relatively modest supplemental appropriations for unforeseen or unpredictable events, such as natural disasters or international crises.

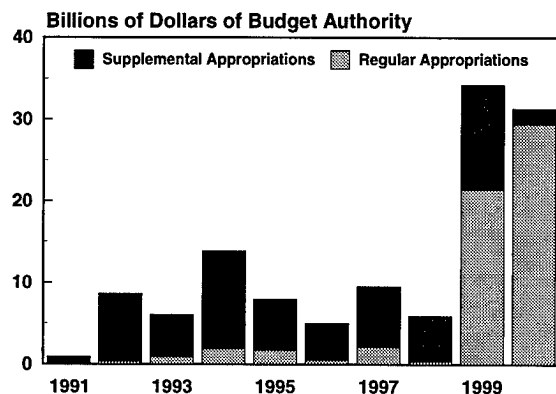
The emergency spending enacted for 1999 and for 2000 is unprecedented, which suggests a change in the practices relating to those funds. Excluding appropriations of about \$50 billion for the Persian Gulf War in 1991 and 1992 (which were completely offset by foreign contributions), appropriations of emergency budget authority from 1991 to 1998 ranged from about \$1 billion in 1991 to \$14 billion in 1994;

they averaged just over \$7 billion annually (see the figure). For 1999 and 2000, however, lawmakers provided over \$30 billion in emergency appropriations each year—more than four times the annual average for the previous eight years. Also suggestive of a change in practice is the scarcity of offsetting funds in 1999 and 2000. For certain years in the 1991-1998 period, lawmakers partially or entirely offset emergency appropriations with rescissions of other discretionary funding. Most of the emergency spending enacted for 1999 and 2000 was not offset.

At least two factors indicate that larger amounts of emergency spending are becoming more routine. First, most of the emergency spending for 1999 and 2000 was part of the regular appropriation acts for those years and not provided in supplemental appropriations, as in years past. That fact suggests that increasingly, emergency appropriations are being used as part of the regular appropriation process to help meet overall spending priorities—instead of to respond to sudden, urgent, and unforeseen events outside of that process.

Second, the Congress and the President provided emergency funds in 1999 and 2000 for a wide range of purposes or activities that had not been deemed emergencies in the past or that, compared with earlier years, had not received substantial increases in funding in the form of emergency spending. Examples of those purposes include funding for assistance payments to farmers, defense operations and maintenance, missile defense, defense health programs, Year 2000 computer conversions, the decennial census, children and family services programs, and management and administration of certain federal agencies. (In the case of agricultural income support, emergency appropriations in 1999 and 2000 provided payments to farmers to help offset the reduction in their incomes caused by low prices for crops. Under policies in effect before 1996, low prices would have automatically triggered somewhat larger payments, and emergency appropriations might have been deemed unnecessary.)

Emergency Spending, Fiscal Years 1991-2000



SOURCE: Congressional Budget Office.

NOTE: Excludes Desert Storm/Desert Shield and related funding.

acted level for 1999; yet it is too high in the inflated and freeze variations of this year's baseline because those projections continue resources (at either an inflated or frozen level) that have been provided in 2000 to conduct the census. Another example is funding for natural disasters. The Congress and the President have provided varying amounts of emergency funding each year since 1990 to help those affected by major hurricanes, floods, tornadoes, and other devastating events. Both the inflated and the freeze variations of the baseline assume that the current year's funding will be repeated, even though that amount may be substantially too high or too low, depending on the number and severity of future disasters. A last example is the "one-time" funding of \$1.8 billion in budget authority to implement the Wye River peace accords for the Middle East. The baseline assumes that the \$1.8 billion will be needed every year. The conduct of the nation's foreign policy could require more or less funding for new international agreements in future years, but the inflated and freeze approaches merely continue the level of funding that has been appropriated.

Other characteristics keep the inflated and freeze baseline variations from being ideal approaches. On the one hand, the inflated version imparts an entitlement-like quality to discretionary spending. That baseline implicitly commits future resources to maintain the real level of discretionary spending, even though there is no explicit statutory basis for such earmarking. In addition, adjusting discretionary amounts for inflation implies real growth in resources when improvements in productivity might allow agencies to deliver the same program level at a lower cost.

On the other hand, the freeze baseline ignores the effects of pay raises and inflation, costs that may erode the amount of services or programs that the government can deliver. (Greater efficiency in delivering services and innovation on the part of program administrators could, however, help to offset some of that erosion.) By assuming that funding will remain frozen at the current nominal level, this approach reduces the resources available to programs relative to the current year, and that effect is compounded over the projection period.

Recent Changes to the Budget Outlook

Under all three variations of CBO's baseline, the current budget outlook is more favorable than the one CBO presented in July 1999. The budget recorded a total surplus of \$124 billion for 1999, which was \$4 billion more than the surplus CBO projected in July, and it reached on-budget balance. (The on-budget surplus for 1999 was \$704 million.) Another favorable change in the current outlook is that the projected total surplus is greater over the next 10 years compared with the July projections. For 2000, CBO estimates a total surplus of \$176 billion—a \$15 billion jump in the amount it projected six months ago. Projections of the total surplus in 2009 range from \$444 billion to \$628 billion, compared with \$413 billion projected last July, and projections of the on-budget surplus range from \$162 billion to \$346 billion, compared with \$178 billion last summer. (The range of estimates for the surplus reflects different paths for discretionary spending.)

CBO attributes the changes in its projections to three factors: recently enacted legislation, changes in the overall economic outlook, and other, technical factors that affect the budget. Since July, the Congress has enacted several pieces of legislation that have had a significant impact on the budget. Overall, that legislative action has reduced surpluses in future years, although changes in the economic outlook as well as changes resulting from technical factors (particularly with regard to spending for Medicare) will more than offset that effect (see Table 1-4 on page 16).

Recent Legislation

Of all recent legislation, appropriation action had the greatest impact by far on the budget outlook for 2000. The Congress and the President enacted eight regular appropriation bills and the Consolidated Appropriations Act. That act contains the regular appropriations for the District of Columbia and incorporates by reference four other regular appropriation bills. It also includes the miscellaneous appropriation act, which

Box 1-2.**How Advance Appropriations Affect CBO's Baseline Projections**

The Congress and the President have already provided some discretionary budget authority for 2001 and 2002 in the form of advance appropriations. How does the Congressional Budget Office (CBO) treat those appropriations in its projections of baseline budget authority for future years? The capped version of the baseline assumes that the statutory limits encompass all appropriations—advance and otherwise—for 2001 and 2002. In the case of CBO's inflated and freeze baseline variations, the answer to that question is more complicated.

When policymakers provide advance appropriations for future years, CBO's projections include that funding—without adjustments for inflation—in those particular years. For subsequent years, CBO projects the last year's advance funding, either with adjustments for inflation (under the inflated baseline variation) or at the last year's level (under the freeze alternative). For example, the Corporation for Public Broadcasting (CPB) has already received an appropriation of \$350 million for 2002, and the inflated and freeze baselines both show budget authority of that amount in that year. After 2002, the freeze variation includes \$350 million annually through 2010, whereas the inflated baseline incorporates adjustments for inflation.

Lawmakers have provided some programs with both regular appropriations for fiscal year 2000 and advance appropriations for 2001. Many of the programs that received both kinds of appropriations were in the education category. Their appropriations for 2000 become available late in the fiscal year and are intended to provide funding from July 2000 through September 2001—thus meshing with the typical academic year. In the case of those programs, the advance appropriations for 2001 are not routine advances, like the ones provided every year for the CPB. Rather, they represent delayed funding of amounts that would ordinarily have been provided in 2000 (for the July 2000-September 2001 period) but instead were shifted into 2001 so that the caps on discretionary budget authority for fiscal year 2000 would not be exceeded. For example, for special education programs, which received budget authority of \$5.3 billion in 1999, lawmakers appropriated only \$2.3 billion for 2000 (see the table below). But funding for the programs actually increased—to \$6.1 billion—for the July 2000-September 2001 period because they also received an advance appropriation of \$3.7 billion for 2001, which will be available for obligation on October 1, 2000. Thus, although the budget authority for those programs was split between two federal fiscal years, the programs will still operate in their usual fashion, and the unusual timing of the appropriations will not affect their outlays.

**Budget Authority and Outlays for Regular and Advance Appropriations
for Special Education Programs (In billions of dollars)**

	Actual		Estimated 2000	CBO Baseline Projections ^a	
	1998	1999		2001	2002
Regular Appropriations					
Budget authority	4.8	5.3	2.3	2.3	2.4
Outlays	3.7	4.4	5.2	5.6	2.5
Advance Appropriations					
Budget authority	0	0	0	3.7	3.8
Outlays	<u>0</u>	<u>0</u>	<u>0</u>	<u>0.2</u>	<u>3.6</u>
Total Appropriations					
Budget authority	4.8	5.3	2.3	6.1	6.2
Outlays	3.7	4.4	5.2	5.8	6.1

SOURCE: Congressional Budget Office.

a. Assuming discretionary budget authority grows at the rate of inflation.

Box 1-2.
Continued

What do CBO's baseline projections for such programs look like? They consist of two components. CBO first projects the programs' appropriation for 2000 into subsequent years, with or without adjustments for inflation (depending on the discretionary spending assumption). It then adds the advance appropriation for 2001 (and corresponding amounts for future years, with or without adjustments for inflation) to the projection of the 2000 appropriation.

The advance appropriations for special education and other similar programs effectively reduce budget authority for 2000 while increasing or maintaining the program's

previous level of funding. By incorporating projections of both the advance and regular appropriations, the inflated and freeze versions of the baseline assume sufficient funding for the years after 2000 to continue the programs at their full 2000 level (in real or nominal terms, respectively). However, because budget authority for 2000 was artificially depressed by the use of advance appropriations, discretionary budget authority under both baseline approaches is higher in subsequent years than a simple projection of budget authority for 2000—inflated or frozen—would produce. That increase amounts to more than \$14 billion for both baseline variations (see the table below).

**Budget Authority and Outlays for Regular and Advance Appropriations
Under Alternative Versions of the Baseline (In billions of dollars)**

	Actual		Estimated	CBO Baseline Projections	
	1998	1999	2000	2001	2002
Budget Authority Grows at the Rate of Inflation					
Regular Appropriations					
Budget authority	28.7	31.2	19.5	25.0	26.8
Outlays	22.8	26.2	31.1	28.1	23.4
Advance Appropriations					
Budget authority	0	0.3	0	14.6	14.9
Outlays	<u>0</u>	<u>0</u>	<u>0</u>	<u>5.4</u>	<u>13.2</u>
Total Appropriations					
Budget authority	28.7	31.5	19.5	39.7	41.7
Outlays	22.8	26.2	31.1	33.5	36.6
Budget Authority Is Frozen After 2001					
Regular Appropriations					
Budget authority	28.7	31.2	19.5	19.7	19.7
Outlays	22.8	26.2	31.1	28.0	23.2
Advance Appropriations					
Budget authority	0	0.3	0	14.6	14.6
Outlays	<u>0</u>	<u>0</u>	<u>0</u>	<u>5.4</u>	<u>13.1</u>
Total Appropriations					
Budget authority	28.7	31.5	19.5	34.3	34.3
Outlays	22.8	26.2	31.1	33.4	36.3

SOURCE: Congressional Budget Office.

NOTE: The table covers only programs that received advance appropriations for 2001 but did not receive them for 2000.

Table 1-4.
Changes in the Capped Baseline Surplus Since July 1999 (By fiscal year, in billions of dollars)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
July Capped Baseline Surplus ^a	161	193	246	247	266	286	334	364	385	413
Legislative Changes										
Revenues	3	-6	-8	-2	-2	-1	-1	*	*	*
Outlays										
Discretionary	25	5	2	2	2	2	2	2	2	2
Mandatory										
Medicare	1	5	4	3	2	2	2	2	2	2
Commodity Credit Corporation	8	*	*	*	*	*	*	*	*	*
Debt service	1	2	3	4	4	5	5	6	6	7
Other	-2	-3	*	-1	-1	-2	-2	-1	-2	-2
Subtotal, outlays	33	11	9	8	7	7	8	8	9	9
Total Impact on the Surplus	-30	-17	-18	-10	-9	-8	-8	-9	-9	-10
Economic Changes										
Revenues	23	41	52	54	53	53	54	56	60	65
Outlays										
Discretionary	0	0	0	0	0	0	0	0	0	0
Mandatory										
Medicare	-2	-2	-2	-2	-3	-3	-4	-5	-5	-5
Net interest (Rate effects)	1	7	12	11	8	6	5	3	2	1
Debt service	-1	-3	-5	-8	-11	-14	-18	-22	-26	-31
Other	-1	-2	-2	-2	-2	-2	-2	-1	-1	-1
Subtotal, outlays	-2	1	3	-1	-8	-13	-19	-24	-30	-36
Total Impact on the Surplus	25	40	49	55	61	66	74	80	89	101
Technical Changes										
Revenues	14	12	8	9	13	14	15	16	18	22
Outlays										
Discretionary	-2	-2	*	*	*	*	*	*	*	*
Mandatory										
Medicare	-5	-7	-8	-10	-10	-12	-15	-20	-25	-29
Commodity Credit Corporation	4	4	5	5	4	2	1	1	*	*
Universal Service Fund	-1	-3	-8	-8	-3	-2	-2	-2	-2	-2
Debt service	-1	-3	-4	-5	-7	-8	-10	-13	-16	-19
Other	*	3	6	-1	2	2	3	*	-1	-1
Subtotal, outlays	-6	-7	-8	-20	-14	-19	-23	-34	-43	-51
Total Impact on the Surplus	20	19	16	28	27	33	38	50	61	74
All Changes										
Revenues	40	46	51	60	64	66	69	71	77	88
Outlays	25	4	4	-13	-15	-24	-35	-50	-64	-78
Total Impact on the Surplus	15	42	47	73	79	90	104	121	141	166
January Capped Variation Surplus	176	235	294	321	345	376	438	485	526	579

SOURCE: Congressional Budget Office.

NOTE: * = less than \$500 million.

a. Assumes that discretionary spending equals CBO's estimates of the statutory caps on such spending through 2002 and grows at the rate of inflation thereafter.

provides funds for disaster assistance and international debt relief, plus a number of measures intended to offset the cost of discretionary spending. In total, CBO estimates that outlays from appropriations for 2000 will be \$25 billion higher than the level implied by the caps as estimated last July. Approximately \$20 billion of the hike in outlays is attributable to spending that was designated as emergency requirements. Funding that received an emergency designation included selected amounts to address natural disasters, more than \$4 billion for the decennial census, nearly \$5 billion for expenditures related to defense operations and maintenance, and \$2 billion for general administrative expenses of the Department of Health and Human Services and the Low Income Home Energy Assistance Program.⁸

The Consolidated Appropriations Act also enacted four other bills by reference. CBO estimates that one of them—H.R. 3426, the Medicare, Medicaid, and SCHIP Balanced Budget Refinement Act of 1999—will reduce the budget surplus by \$27 billion between 2000 and 2009, mostly by increasing Medicare costs.

Other legislation affected projected revenues. Most notably, the Joint Committee on Taxation estimates that the Ticket to Work and Work Incentives Improvement Act will lower revenues by a total of \$18 billion between 2000 and 2009. In 2000, however, revenues are projected to increase by \$3 billion, largely as the result of a provision that shifts a \$3.8 billion payment from the Federal Reserve System from 2001 to 2000. (Owing to that provision, revenues in 2001 will be lower by a comparable amount.)

Compared with CBO's July projections, outstanding debt will decline as a result of overall increases in the surplus, but it does not fall as much as it would have in the absence of the legislation enacted in the past six months. CBO estimates that those changes will lead to debt-service costs that, based on

the July projections, are \$43 billion higher from 2000 through 2009.

Economic Changes

Since July, CBO has revised its economic assumptions. (For a more extensive discussion of the economic outlook, see Chapter 2.) The changes represent CBO's best judgment about the path of the economy, which includes improved productivity tempered by tight labor markets and slight increases in inflation and interest rates.

The most significant change is CBO's upward revision of its projections of economic growth to reflect the performance of the economy in recent months and to incorporate recent revisions in the national income and product accounts. On a fiscal year basis, CBO now projects that GDP will grow by 5.1 percent in 2000 and 4.7 percent in 2001, compared with last July's projections of 4.6 percent and 4.2 percent. For 2002 through 2009, the rate of growth of GDP averages 0.2 percentage points higher than the rate noted in July's estimates. As a result, current projections of revenues, which reflect anticipated improvements in incomes, are more than \$500 billion higher over the 2000-2009 period than the amount CBO projected last July. (Chapter 3 provides the outlook for revenues.)

Medicare's payment rates for many services are adjusted each year to reflect changes in wages and other price indexes. As a result of lower rates of growth in those factors, Medicare spending is projected to be \$2 billion lower in 2000 than CBO estimated last summer. By 2007, those economic changes will reach \$5 billion per year; over the 2000-2009 period, they total \$33 billion.

CBO projects that interest rates in 2001 and 2002 will be approximately 1 percentage point higher than previously forecast. After 2002, interest rates are projected to climb by at least 30 basis points (a basis point is a hundredth of a percentage point). Such changes boost anticipated interest costs by \$7 billion in 2001, \$12 billion in 2002, \$11 billion in 2003, and smaller amounts thereafter. In contrast, savings in debt-service costs, resulting mainly from CBO's higher projections of revenues, add as much as \$31

8. Discretionary appropriation action for 2000 provided \$8.7 billion in budget authority (resulting in an estimated \$8.3 billion in outlays in 2000) to the Commodity Credit Corporation (CCC) for additional assistance to farmers. However, because the budget classifies outlays of the CCC as mandatory, those additional payments are shown under changes to mandatory spending in Table 1-4.

billion a year to the surplus by 2009. Compared with CBO's previous projections, the changes in economic assumptions reduce overall interest costs by \$81 billion over the 2000-2009 period.

Technical Reestimates

Technical revisions are defined as any changes that are not ascribed to new legislation or to changes in the macroeconomic forecast. Technical changes could be economic in nature but are not tied to CBO's economic forecast—examples are spending for farm price supports and realizations of capital gains from selling assets. A variety of other factors could also produce technical changes, such as revised assumptions about the number of people who will qualify to receive various benefits, different estimates of the level of benefits they will use, and adjustments to the rate at which discretionary programs will spend their budget authority.

Overall, changes resulting from technical factors swell projected surpluses by \$366 billion over the 2000-2009 period. Downward revisions to spending for Medicare account for \$141 billion, or nearly 40 percent, of that total.

Revenues. The technical revisions CBO has made to its projections of revenues for the 2001-2010 period vary from year to year, but for most years, they range from \$10 billion to \$20 billion. Overall, technical reestimates represent 20 percent of CBO's projected increases in revenues. The annual amount of the reestimates starts at \$14 billion in 2000, drops to below \$10 billion in 2002 and 2003, and then steadily rises to \$22 billion by 2009.

The dip in 2002 and 2003 reflects lower receipts for the Universal Service Fund, which have an offsetting effect on outlays. That program subsidizes the cost of telecommunications services in high-cost regions of the country for low-income customers, schools, libraries, and certain health care providers. The program is financed through federal charges on telephone bills, which are recorded in the budget as revenues. Technical changes to projections of the fund's receipts reflect a delay in the implementation of a part of the program that will eventually subsidize the

cost of services in rural high-cost areas. That change is expected to reduce revenues and spending by equivalent amounts—about \$32 billion over the 2000-2009 period.

With the exception of the changes to the Universal Service Fund that affect projections for 2002 and 2003, the technical changes to revenues are relatively stable. In the early years of the projection period, those changes largely reflect increased realizations of capital gains arising from the continued strength of the stock market. That effect, however, gradually wanes and is replaced in later years by another: higher receipts from social insurance and individual income taxes other than those related to capital gains.

Medicare. Technical changes in CBO's Medicare projections reduce anticipated spending by \$5 billion in 2000. The size of those reductions grows steadily each year; in 2009, they lower estimated outlays by \$29 billion. The changes reflect continuing moderation in the annual rate of growth of Medicare spending, which analysts attribute to smaller increases than in past years in the use of medical services and better compliance by hospitals and other health service providers with Medicare payment rules.

The Supplementary Medical Insurance (SMI) program—also known as Part B of Medicare—is financed partly by voluntary premiums paid by beneficiaries (25 percent of projected expenses) and partly by the government's general fund (75 percent of program costs). CBO's current projections assume that SMI costs will grow more slowly than previously estimated. Because premium income is tied to costs, SMI revenues will not grow as much in the future as CBO had expected last July.

Commodity Credit Corporation. CBO has revised its projections of CCC spending sharply upward to reflect low prices for agricultural products in the United States and abroad. Those low prices in turn affect assistance payments to farmers. CBO estimates that for the next few years, such payments will remain higher than previously projected. Eventually, however, CBO expects commodity prices to recover and payments to return to the levels that CBO projected last July.

The Outlook for Federal Debt

Measures of federal debt are meant to tally the accumulated past obligations of the government—what the government owes. Yet the two primary measures present vastly different perspectives on the magnitude of such obligations and what they might be like in the future, given the outlook for the budget.

Debt held by the public—the most economically meaningful measure of previous obligations—is the net amount of money that the federal government has borrowed to finance all of the deficits accumulated over the nation's history, less any surpluses, as well as other, considerably smaller financing needs. At the end of 1999, debt held by the public totaled \$3.6 trillion—\$88 billion less than at the end of the previous year and \$138 billion less than at its 1997 peak. Under all three variations of the baseline, CBO projects that debt held by the public will decline.

Gross federal debt—and a similar measure, debt subject to limit—counts debt issued to government accounts as well as debt held by the public. Debt issued to government accounts does not flow through the credit markets; such transactions are intragovernmental and have little or no effect on the economy. Under all three baseline variations, both gross federal debt and debt subject to limit are rising by 2009.

Debt Held by the Public

To cover the difference between revenues and expenditures, the Department of the Treasury raises money by selling securities to the public. Between 1969 and 1997, the Treasury sold ever-increasing amounts of those securities to finance continuing deficits, thus causing debt held by the public to climb from year to year. CBO's current baseline paths now point toward a different outcome. If the projected surpluses materialize, debt held by the public will decline substantially from today's level of \$3.6 trillion (see Table 1-5).

Indeed, CBO estimates that under all three versions of its baseline, debt held by the public that is

available for redemption could be retired by 2009. "Available" is the key word: some portion of the outstanding debt will remain in public hands because many 30-year bonds are not slated to mature until after 2010. The Treasury has announced that it plans to begin repurchasing some outstanding debt in 2000; however, it is unlikely that over time, all holders of 30-year bonds (or even a significant portion of them) will choose to sell their securities at prices that the government would be willing to pay. Furthermore, unless the government discontinues the Treasury's programs for savings bonds and state and local government securities, those forms of debt will continue to be issued and will remain outstanding at the end of the projection period.

Under each of the discretionary spending variations of CBO's baseline, the Treasury would have sufficient cash on hand sometime between 2007 and 2009 to retire all debt held by the public. For the reasons given above, it could not devote all of those funds to that purpose. Under such circumstances, it might be more plausible to assume that the Congress and the President would decide to cut taxes and increase spending to dissipate any surplus cash that either was not needed to pay for the government's activities and services or that remained after all available debt had been redeemed. However, because CBO makes no assumptions about future policy actions, its projections simply assume that the Treasury will invest all excess cash at a rate of return equal to the average rate projected for Treasury bills and notes.

Why Debt Held by the Public Does Not Decline by the Amount of the Surplus. In most years, what the Treasury borrows closely reflects the total deficit or surplus. However, a number of factors broadly labeled "other means of financing" also affect the government's need to borrow money from the public. Those factors include reductions (or increases) in the government's normal cash balances needed for day-to-day operations, seigniorage, and other, miscellaneous changes. The largest of those other borrowing needs reflects the capitalization of financing accounts used for credit programs. Direct student loans, rural housing programs, loans by the Small Business Administration, and other credit programs require the government to disburse money up front on the promise of repayment at a later date. Those up-front outlays are not counted in the budget, which reflects only the esti-

Table 1-5.
CBO Projections of Federal Debt at the End of the Year Under Alternative Versions of the Baseline
(By fiscal year, in billions of dollars)

	Actual 1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Discretionary Spending Grows at the Rate of Inflation After 2000^a												
Debt Held by the Public	3,633	3,455	3,292	3,097	2,884	2,651	2,394	2,080	1,721	1,330	1,016	941
Debt Held by Government Accounts												
Social Security	855	1,009	1,175	1,358	1,554	1,763	1,988	2,227	2,481	2,749	3,030	3,325
Other government accounts ^b	<u>1,118</u>	<u>1,201</u>	<u>1,282</u>	<u>1,367</u>	<u>1,450</u>	<u>1,530</u>	<u>1,609</u>	<u>1,696</u>	<u>1,783</u>	<u>1,867</u>	<u>1,951</u>	<u>2,035</u>
Subtotal	1,973	2,210	2,458	2,725	3,004	3,293	3,597	3,923	4,264	4,616	4,981	5,360
Gross Federal Debt	5,606	5,665	5,750	5,822	5,888	5,944	5,991	6,003	5,984	5,946	5,997	6,300
Debt Subject to Limit ^c	5,568	5,627	5,712	5,784	5,851	5,908	5,955	5,967	5,949	5,911	5,963	6,267
Accumulated Excess Cash Greater Than Debt Available for Redemption	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	122	528
Memorandum:												
Debt Held by the Public as a Percentage of GDP	39.9	36.1	32.8	29.5	26.3	23.2	20.1	16.7	13.2	9.8	7.2	6.3
Discretionary Spending Is Frozen at the Level Enacted for 2000^a												
Debt Held by the Public	3,633	3,455	3,281	3,062	2,805	2,506	2,162	1,739	1,249	1,078	1,016	941
Debt Held by Government Accounts												
Social Security	855	1,009	1,175	1,358	1,554	1,763	1,988	2,227	2,481	2,749	3,030	3,325
Other government accounts ^b	<u>1,118</u>	<u>1,201</u>	<u>1,282</u>	<u>1,367</u>	<u>1,450</u>	<u>1,530</u>	<u>1,609</u>	<u>1,696</u>	<u>1,783</u>	<u>1,867</u>	<u>1,951</u>	<u>2,035</u>
Subtotal	1,973	2,210	2,458	2,725	3,004	3,293	3,597	3,923	4,264	4,616	4,981	5,360
Gross Federal Debt	5,606	5,665	5,739	5,787	5,809	5,799	5,759	5,662	5,512	5,693	5,997	6,300
Debt Subject to Limit ^c	5,568	5,627	5,701	5,750	5,772	5,762	5,723	5,627	5,478	5,659	5,963	6,267
Accumulated Excess Cash Greater Than Debt Available for Redemption	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	377	935	1,555
Memorandum:												
Debt Held by the Public as a Percentage of GDP	39.9	36.1	32.7	29.2	25.6	21.9	18.1	14.0	9.6	7.9	7.2	6.3
Discretionary Spending Equals CBO's Estimates of the Statutory Caps Through 2002 and Grows at the Rate of Inflation Thereafter												
Debt Held by the Public	3,633	3,455	3,234	2,954	2,647	2,314	1,949	1,522	1,142	1,078	1,016	941
Debt Held by Government Accounts												
Social Security	855	1,009	1,175	1,358	1,554	1,763	1,988	2,227	2,481	2,749	3,030	3,325
Other government accounts ^b	<u>1,118</u>	<u>1,201</u>	<u>1,282</u>	<u>1,367</u>	<u>1,450</u>	<u>1,530</u>	<u>1,609</u>	<u>1,696</u>	<u>1,783</u>	<u>1,867</u>	<u>1,951</u>	<u>2,035</u>
Subtotal	1,973	2,210	2,458	2,725	3,004	3,293	3,597	3,923	4,264	4,616	4,981	5,360
Gross Federal Debt	5,606	5,665	5,692	5,679	5,651	5,608	5,546	5,445	5,406	5,693	5,997	6,300
Debt Subject to Limit ^c	5,568	5,627	5,654	5,641	5,614	5,571	5,510	5,410	5,371	5,659	5,963	6,267
Accumulated Excess Cash Greater Than Debt Available for Redemption	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	96	549	1,058	1,608
Memorandum:												
Debt Held by the Public as a Percentage of GDP	39.9	36.1	32.2	28.1	24.2	20.3	16.3	12.2	8.8	7.9	7.2	6.3

SOURCE: Congressional Budget Office.

NOTE: n.a. = not applicable.

a. After adjustment for advance appropriations.

b. Mainly Civil Service Retirement, Military Retirement, Medicare, unemployment insurance, and the Airport and Airway Trust Fund.

c. Differs from the gross federal debt primarily because most debt issued by agencies other than the Treasury is excluded from the debt limit (currently, \$5,950 billion).

mated subsidy costs of such programs. Because the amount of the loans being disbursed is larger than the repayments and interest flowing back into the financing accounts, the government's annual borrowing needs are \$7 billion to \$14 billion higher than the budget surplus would indicate.

In 1999, the Treasury ended the fiscal year with an unusually large cash balance for operations. Normally, the Treasury tries to end the year with between \$40 billion and \$50 billion in cash, but on September 30, the balance totaled \$56.5 billion. The unneeded portion of the cash balance will be used to reduce debt held by the public during fiscal year 2000.

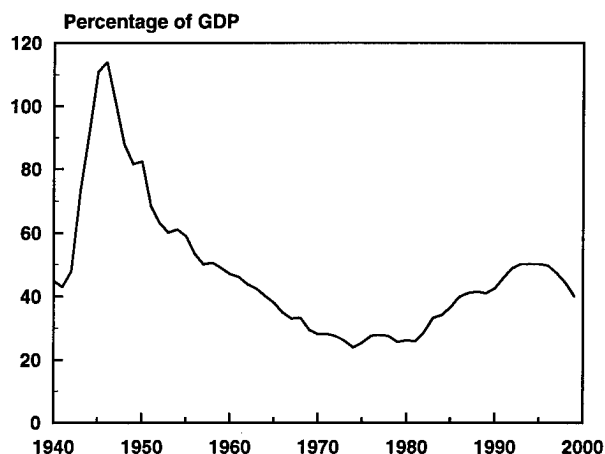
Toward the end of the projection period, public debt is projected to decline by less than the amount of the surplus (adjusted for other means of financing, such as seigniorage). CBO assumes that by that time, proceeds from excess cash will help to increase the surplus but excess cash (by definition) will not contribute to reductions in debt. For example, under the inflated version of the baseline, the surplus in 2010 is projected to be \$489 billion. Of that total, approximately \$75 billion may be used to redeem available debt, another \$8 billion would be consumed by other means of financing, and the remaining \$406 billion would represent excess cash.

Debt Held by the Public as a Percentage of GDP.

As a share of GDP, debt held by the public reached a plateau in the 1990s and held steady at about 50 percent from 1993 through 1995 (see Figure 1-3). Since then, it has fallen to 40 percent of GDP. By 2004, under all three of CBO's baseline variations, that share will plunge below its post-World War II nadir of 24 percent (achieved in 1974).

Over time, the nation's shrinking debt will generate considerable savings in the government's interest payments. Reducing debt in the near term can substantially decrease interest payments in the future. In fact, by 2005, net interest spending is projected to drop to between 1.2 percent and 1.3 percent of GDP—as a share of the economy, half as large as it was in 1999.

Figure 1-3.
Debt Held by the Public as a Share of GDP
(By fiscal year)



SOURCE: Congressional Budget Office.

Gross Federal Debt

In addition to selling securities to the public, the Treasury has issued nearly \$2 trillion in securities to various government accounts (mostly trust funds). The largest balances are in the Social Security trust funds (\$855 billion at the end of 1999) and the retirement funds for federal civilian employees (\$492 billion). The total holdings of government accounts grow approximately in step with projected trust fund surpluses. The funds redeem securities when they need to pay benefits; in the meantime, the government both pays and collects interest on those securities.

Investments by trust funds and other government accounts are handled within the Treasury, and the purchases and sales (with very rare exceptions) do not flow through the credit markets. Similarly, interest on those securities is simply an intragovernmental transfer: it is paid by one part of the government to another part and does not affect the total deficit or surplus. Thus, participants in financial markets view trust fund holdings as a bookkeeping entry—an intragovernmental IOU. Nevertheless, those holdings indicate a commitment by the government to use future resources for the trust fund programs, although the amount of the holdings may eventually be insufficient to sustain the programs' benefits at the levels defined under current law.

Debt Subject to Limit

The Congress sets a limit on the Treasury's authority to issue debt. That ceiling—which currently stands at \$5.95 trillion—applies to securities issued to federal trust funds as well as those sold to the public. Debt subject to limit is practically identical to gross federal debt and is widely cited as the measure of the government's indebtedness. (The minor differences between the two arise chiefly because securities issued by agencies other than the Treasury, such as the Tennessee Valley Authority, are exempt from the debt limit.)

Taken as a whole, under all three variations of CBO's baseline, the balances in trust funds and in other government accounts that hold Treasury securities will continue to swell as long as the total budget records surpluses. As a result, debt subject to limit will continue to grow from its level of \$5.6 trillion at the end of 1999, and all of CBO's baseline variations eventually show debt reaching its ceiling within the projection period. When discretionary spending is adjusted for inflation, debt subject to limit reaches the statutory limit in 2005; under both the freeze and the capped approaches, the limit would be reached in 2009.

Federal Funds and Trust Funds

The budget comprises two groups of funds: trust funds and federal funds. Trust funds are those programs so labeled in legislation; federal funds include all other transactions with the public. Over 60 percent of federal spending is derived from federal funds.

There are more than 150 federal government trust funds, although fewer than a dozen account for the vast share of trust fund dollars. Among the largest are the two Social Security trust funds (the Old-Age and Survivors Insurance and Disability Insurance funds), and those dedicated to Civil Service Retirement, Medicare Hospital Insurance (Part A), and Military Retirement. Trust funds have no particular economic significance; they function primarily as accounting mechanisms to track receipts and spending

for programs that have specific taxes or other revenues earmarked for their use.

When a trust fund receives payroll taxes or other income that is not currently needed to pay benefits, the excess is loaned to the Treasury. If the rest of the budget is in deficit, the Treasury borrows less from the public than would otherwise be required to finance current operations. If the rest of the budget is in balance or in surplus, the Treasury uses the cash from trust fund programs to retire outstanding debt owed to the public.

The process is reversed when the time comes for a trust fund to draw down its reserves to pay expenses. To repay what it has borrowed (with interest) from the trust fund, the federal government must raise the cash by boosting taxes, reducing other spending, borrowing more from the public, or (if the total budget is in surplus) retiring less debt.

Including the cash receipts and expenditures of trust funds in the budget totals with other federal programs is vital to assess the effect of federal activities on the Treasury's need to borrow from the public. CBO, OMB, and other fiscal analysts therefore focus on the total surplus or deficit because it is an overall measure of the federal government's cash operations—which include trust fund programs.

In 2000, the total surplus is estimated to be \$176 billion, which can be divided into a federal funds deficit of \$60 billion and a combined trust fund surplus of \$236 billion (see Table 1-6). That division of the total surplus is somewhat misleading, however, because trust funds receive much of their income from transfers within the budget. Such transfers shift resources away from the general fund (thereby boosting the federal funds deficit) to the trust funds (thus swelling the trust fund surpluses). Those intragovernmental transfers will total \$296 billion in 2000. The largest transfers include interest paid to trust funds (\$131 billion), government contributions to retirement funds on behalf of present and past government employees (\$74 billion), and contributions from the general fund to Medicare, principally the SMI fund (\$71 billion). Without intragovernmental transfers, the trust funds would have an overall deficit every year—assuming that discretionary spending grew with inflation—that

would climb from \$60 billion in 2000 to \$177 billion in 2010.

Intragovernmental transfers reallocate costs from one part of the budget to another. For example, transfers representing government contributions to retirement funds attribute a portion of the retirement costs that the government anticipates in the future to its current personnel budgets. They do not change the total surplus or the government's borrowing needs. As a

result, they have no effect on the economy or on the government's future ability to sustain spending at the levels indicated by current policies.

All major trust funds except the Medicare SMI fund are now generating surpluses, and CBO projects that they will continue doing so through 2010. The SMI fund will register small deficits between 2002 and 2005 as beneficiary premiums are held down. CBO's current projections show that the Medicare

Table 1-6.
Trust Fund Surpluses (By fiscal year, in billions of dollars)

	Actual 1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Social Security	125	154	166	183	196	209	225	239	254	268	281	295
Medicare												
Hospital Insurance (Part A)	22	22	22	28	27	26	23	27	22	19	15	11
Supplementary Medical Insurance (Part B)	<u>5</u>	<u>7</u>	<u>2</u>	<u>-1</u>	<u>*</u>	<u>-1</u>	<u>-1</u>	<u>2</u>	<u>4</u>	<u>4</u>	<u>4</u>	<u>5</u>
Subtotal	26	29	24	27	27	26	22	30	26	23	19	16
Military Retirement	7	8	8	9	9	10	10	11	12	13	13	14
Civilian Retirement ^a	31	30	31	32	31	31	30	30	30	30	29	29
Unemployment	7	8	9	8	6	3	4	4	5	3	4	6
Highway and Mass Transit	10	3	2	2	3	3	4	4	5	5	6	6
Airport and Airway	3	1	*	*	*	1	1	2	3	4	4	5
Other ^b	<u>3</u>	<u>3</u>	<u>4</u>	<u>4</u>	<u>4</u>	<u>4</u>	<u>4</u>	<u>4</u>	<u>4</u>	<u>4</u>	<u>5</u>	<u>5</u>
Total Trust Fund Surplus	213	236	244	265	277	286	301	324	338	349	362	375
Federal Funds Deficit (-) or Surplus ^c	-88	-60	-67	-56	-50	-41	-33	1	31	50	81	114
Total Surplus ^c	124	176	177	209	227	246	268	325	368	399	444	489
Memorandum:												
Net Transfers from the General Fund to Trust Funds	315	296	313	333	360	383	411	436	470	501	535	572

SOURCE: Congressional Budget Office.

NOTE: * = less than \$500 million.

- a. Civil Service retirement, foreign service retirement, and several small funds.
- b. Primarily Railroad Retirement, employees' health and life insurance, Hazardous Substance Superfund, and various veterans' insurance trust funds.
- c. Assumes that discretionary spending grows with inflation after adjustment for advance appropriations. The total surplus would be greater under the capped baseline variation (which assumes that discretionary spending equals CBO's estimates of the statutory caps through 2002 and grows at the rate of inflation thereafter) or the freeze version (which assumes that discretionary spending is frozen at the level enacted for 2000).

Hospital Insurance fund generates surpluses (from payroll tax revenues, voluntary contributions from individuals, and other, noninterest sources) through 2007 and runs total surpluses (including interest) throughout the 2001-2010 period.

The Social Security trust funds are currently running a combined annual surplus of \$154 billion. By 2010, that surplus is expected to increase to \$295 billion. But it will begin to shrink soon afterward as large numbers of baby boomers start to retire. CBO's detailed baseline estimates do not extend beyond 2010, but according to the Social Security actuaries' most

recent estimates (those using intermediate assumptions), payroll taxes will be insufficient to cover the program's benefit payments and other expenditures starting in 2014. Total income (including interest) to the trust funds is expected to fall short of total expenditures beginning in 2022, and the funds are likely to be exhausted in 2034.⁹

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9. Board of Trustees, Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds, *1999 Annual Report of the Board of Trustees, Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds* (March 1999).

The Economic Outlook

In 1999, the U.S. economy continued to expand far beyond expectations yet without any meaningful acceleration in underlying inflation. Most analysts expect the economy's growth to remain strong but to slow at least moderately from its 4.3 percent pace of the past three years.

The Congressional Budget Office forecasts real economic growth of about 3 percent on average over the next two years and a slight rise in the underlying rate of inflation. In CBO's projections for 2002 through 2010, the growth of real (inflation-adjusted) gross domestic product averages 2.7 percent a year (see Figure 2-1). Inflation measured by the consumer price index (CPI) averages 2.5 percent a year after 2001, and the unemployment rate averages 5.0 percent. Short- and long-term interest rates are assumed to average 4.8 percent and 5.7 percent, respectively, after 2001.

CBO projects that the long-run sustainable level of GDP (that is, potential GDP) will grow slightly faster than actual GDP over the next 10 years, averaging 3.3 percent through 2002, slowing over the following four years, and settling down to a 2.9 percent rate after 2006. Actual growth will be slightly lower because CBO estimates that GDP is currently above its sustainable level. The 2.9 percent growth rate of potential GDP after 2006 reflects 1.8 percent growth of real GDP per worker and 1.1 percent growth of the labor force.

CBO's current economic outlook is more optimistic about the prospects for real growth than the one reported in its July 1999 report, *The Economic and*

Budget Outlook: An Update. Compared with the July projections, growth of real GDP and labor productivity is significantly higher, CPI inflation is unchanged, and interest rates are slightly higher (see Table 2-1). Private-sector assessments of the economy's recent behavior reach the same conclusion—that the sustainable trends in the growth of labor productivity and real GDP are higher than previously thought possible.

In CBO's current projection, real GDP grows for the next 10 years at an average annual rate that is 0.4 percentage points higher than was projected in July. Several factors account for that increase: 0.2 percentage points stem from a reassessment of how much of the recent surge in productivity will persist; slightly less than 0.1 percentage point is attributable to a change in the projected growth of the labor force; and the rest reflects revisions in the measurement of real GDP (see Box 2-1 on page 38).

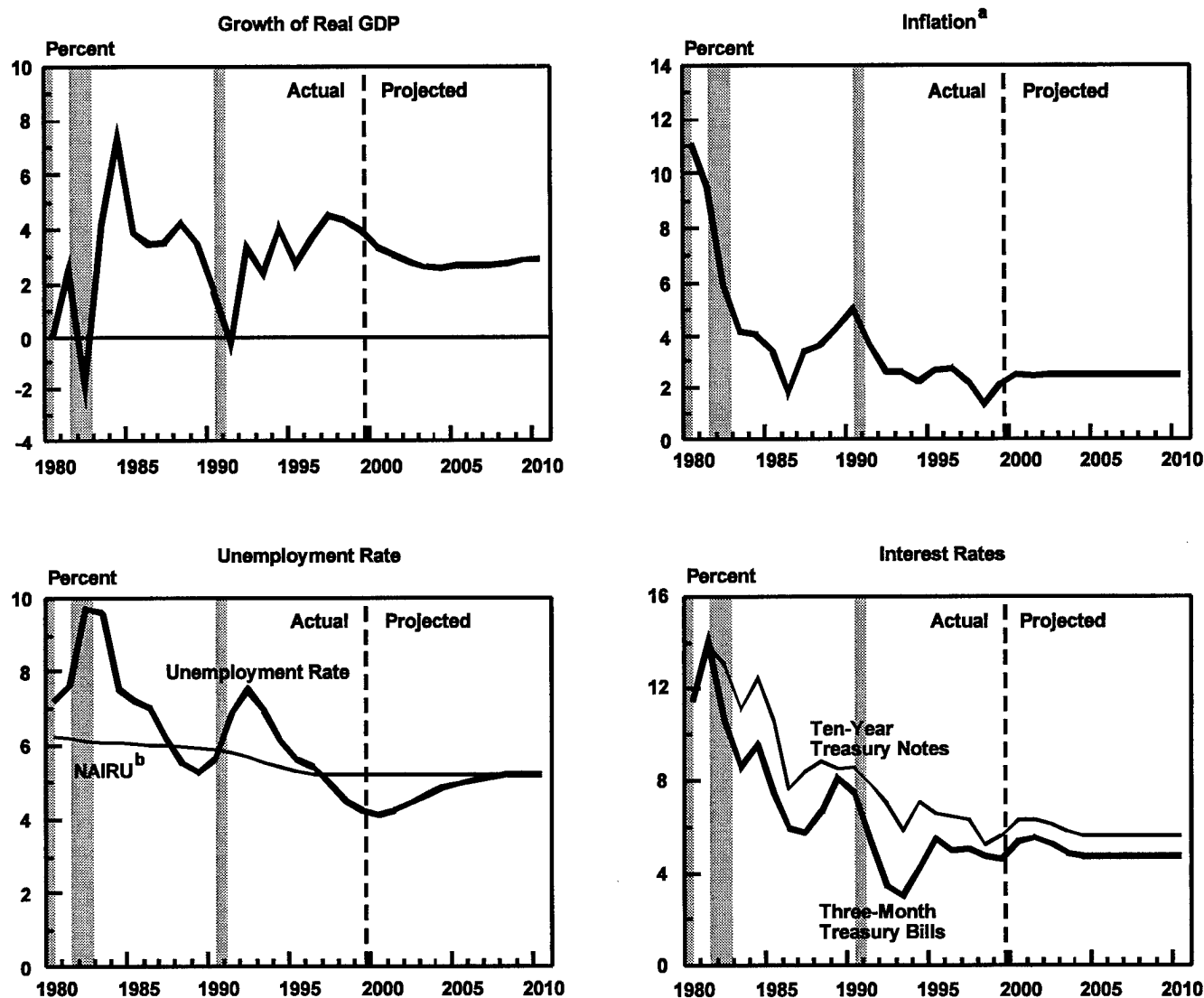
The growth of nominal GDP and the income categories that are important for revenue projections have not changed as much from the July projections as the growth of real GDP, largely because the projected rate of growth of the GDP price index is lower. Furthermore, revisions to the historical data, along with revised outlooks for depreciation, net investment income from abroad, and corporate debt-service costs, have reduced growth in the income categories that are important for revenue projections relative to the growth of GDP.

This outlook reflects an average of a wide range of possible outcomes. For the near term, the outlook may be worse if tight labor markets trigger higher in-

flation and interest rates, or if the stock market declines sharply. Alternatively, if the rapid productivity growth of the past few years persists or accelerates, both real growth and inflation may turn out to be better than forecast. For the 10-year horizon, CBO's

projections try to take into account the probability of booms and recessions, but the average performance of the economy could certainly be better or worse than indicated here. Chapter 5 examines some alternative views of future economic developments and what those alternatives could mean for the federal budget.

Figure 2-1.
The Economic Forecast and Projection



SOURCES: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis; Department of Labor, Bureau of Labor Statistics; Federal Reserve Board.

NOTE: All data are annual values; growth rates are year over year.

a. The consumer price index for all urban consumers, with current methodology applied to historical price data (CPI-U-RS).

b. CBO's estimate of the nonaccelerating inflation rate of unemployment.

Table 2-1.
Comparison of CBO Economic Projections for Calendar Years 2000-2010

	Estimated 1999	Forecast		Projected								
		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Nominal GDP (Billions of dollars)												
January 2000	9,235	9,692	10,154	10,610	11,069	11,544	12,054	12,589	13,148	13,734	14,362	15,024
July 1999	8,964	9,351	9,751	10,159	10,583	11,027	11,508	12,017	12,554	13,113	13,695	n.a.
Nominal GDP (Percentage change)												
January 2000	5.4	5.0	4.8	4.5	4.3	4.3	4.4	4.4	4.4	4.5	4.6	4.6
July 1999	5.3	4.3	4.3	4.2	4.2	4.2	4.4	4.4	4.5	4.5	4.4	n.a.
Real GDP ^a (Percentage change)												
January 2000	3.9	3.3	3.1	2.8	2.6	2.6	2.7	2.7	2.7	2.7	2.9	2.9
July 1999	4.0	2.4	2.4	2.3	2.3	2.3	2.5	2.5	2.5	2.5	2.5	n.a.
GDP Price Index ^b (Percentage change)												
January 2000	1.4	1.6	1.6	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
July 1999	1.3	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	n.a.
Consumer Price Index ^c (Percentage change)												
January 2000	2.2	2.5	2.4	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
July 1999	2.2	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	n.a.
Unemployment Rate (Percent)												
January 2000	4.2	4.1	4.2	4.4	4.7	4.8	5.0	5.0	5.1	5.2	5.2	5.2
July 1999	4.2	4.3	4.6	4.9	5.1	5.3	5.4	5.5	5.5	5.5	5.5	n.a.
Three-Month Treasury Bill Rate (Percent)												
January 2000	4.6	5.4	5.6	5.3	4.9	4.8	4.8	4.8	4.8	4.8	4.8	4.8
July 1999	4.6	5.0	4.6	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	n.a.
Ten-Year Treasury Note Rate (Percent)												
January 2000	5.6	6.3	6.4	6.1	5.8	5.7	5.7	5.7	5.7	5.7	5.7	5.7
July 1999	5.6	5.9	5.5	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	n.a.
Tax Bases (Billions of dollars)												
Corporate profits ^d												
January 2000	840	829	833	829	839	860	885	919	954	991	1,028	1,060
July 1999	724	687	725	758	783	814	844	880	915	950	982	n.a.
Wages and salaries												
January 2000	4,475	4,732	4,959	5,183	5,408	5,641	5,890	6,150	6,422	6,706	7,009	7,328
July 1999	4,410	4,632	4,810	4,995	5,207	5,431	5,670	5,922	6,187	6,463	6,751	n.a.

SOURCES: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis; Department of Labor, Bureau of Labor Statistics; Federal Reserve Board.

NOTES: Percentage changes are year over year. The projections for nominal GDP and the tax bases are not comparable because of definitional changes in the national income and product accounts (see Box 2-1).

n.a. = not applicable.

a. Based on chained 1996 dollars.

b. The GDP price index is virtually the same as the implicit GDP deflator.

c. The consumer price index for all urban consumers.

d. Corporate profits are book profits.

The State of the Economy

Over the past several years, the U.S. economy has performed exceptionally well, featuring rapid growth and very low unemployment yet declining inflation. Since 1996, real GDP growth has averaged better than 4 percent, compared with an average of about 3 percent since 1973. Because of the four years of rapid growth, the unemployment rate has fallen to 4.1 percent, its lowest level since January 1970. Core CPI inflation, which excludes food and energy prices, had been running about 3 percent earlier in the decade but was roughly 2 percent over the past year. The scenario that forecasters were concerned about a year ago—that the fallout from the economic crisis in Asia could halt the expansion—has not materialized.

Much of the good news can be attributed to a surge in productivity growth, which has permitted the economy to grow faster without raising the rate of inflation. Low import and (until recently) oil prices and a number of other favorable but probably transitory developments also helped suppress inflation.

Domestic demand grew even faster than productivity, boosting employment and real disposable income. That increase in income supported steady expansion in consumption and housing. The consumer spending boom has been further fueled by the unprecedented increase in household wealth generated by rising stock prices. Relatively low nominal interest rates made possible by low inflation have also boosted demand, especially in the housing sector.

Business investment in plant and equipment has also grown rapidly. The investment boom has been driven by rapid growth in consumer spending, a low cost of capital, and a high degree of confidence in the U.S. economy manifested both in rising stock prices and in foreigners' willingness to invest in U.S. assets. That boom has also played an important part in the productivity surge.

With demand growing considerably faster at home than abroad, and with the dollar rising and import prices falling, the trade deficit has widened to a record share of GDP. The inflow of foreign capital and the supply of foreign goods has allowed U.S. de-

mand to run ahead of domestic production. But as foreign economies recover, the temporary effects of their weakness will wane: import prices will rise, some capital will flow back abroad, and the dollar may weaken.

The economy retains considerable forward momentum, but at some point a slowdown from its recent blistering pace seems inevitable. The growth of the past several years has exceeded that which can be accounted for by most estimates of sustainable productivity growth and by the rise in the working-age population. Consequently, the unemployment rate has fallen, and the pool of workers available to meet continued growth in demand has dwindled to a bare minimum. In such an environment, employers can be expected to bid up wage and benefit offers in order to attract and retain able workers. That upward pressure on compensation growth may be exacerbated by two factors—anticipated boosts in medical insurance premiums, and higher price inflation as a result of the run-up in energy prices that has already occurred.

If tight labor markets push up labor costs, the best news regarding price inflation may be in the past. Unless offset by continued increases in productivity growth, a faster rise in labor costs could be reflected in consumer prices. The recovery of foreign economies may add to those pressures by boosting commodity prices and by strengthening foreign currencies relative to the dollar, which would raise import prices.

The Federal Reserve has already responded to the threat of accelerating inflation by raising the federal funds rate 75 basis points (0.75 percentage points) since June. Some signs indicate that monetary tightening and the resulting higher mortgage rates may have slightly dampened activity in the housing market, but there is little indication of a more broadly based slowdown. Although those rate hikes may, as the Federal Reserve hopes, diminish the risk of inflation in the near term, further increases may still be needed to slow demand sufficiently. Higher interest rates could also help hold inflation down by keeping the dollar strong and import prices low.

Instead of leading to higher price inflation, faster compensation growth could squeeze corporate profits if firms are unable to pass the cost increases on to customers. Such a squeeze could curtail the investment

boom and might also dampen equity prices and, thereby, consumer spending. To the extent that a broad economic slowdown occurred through that channel, it would diminish the Federal Reserve's need to raise interest rates.

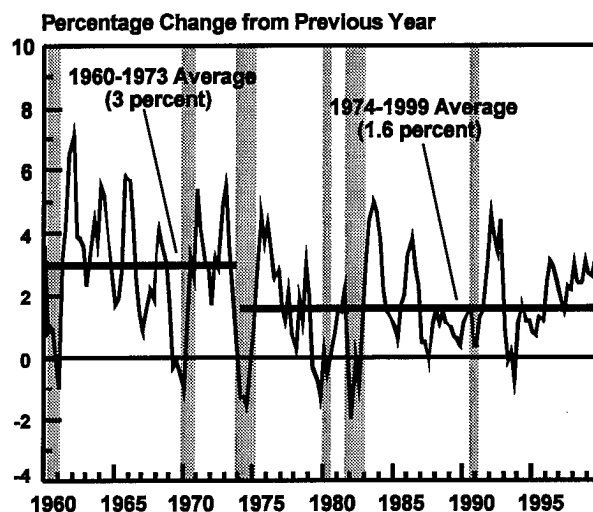
Productivity Growth Has Picked Up

The surge in productivity growth over the past four years largely explains the exceptionally favorable combination of rapid growth in output and low inflation. Since the fourth quarter of 1995, output per hour worked in the nonfarm business sector has risen at an average annual rate of 2.6 percent, compared with average annual growth since 1973 of 1.6 percent (see Figure 2-2).¹

Productivity growth may have finally rebounded from a slump of more than two decades. Since the factors behind that rebound are not well understood, analysts cannot be sure whether it represents a temporary deviation from the post-1973 trend or a shift to a permanently higher trend (see Appendix A). Productivity growth tends to oscillate around its trend, and significant deviations lasting a few years are not uncommon, so discerning a break in the trend can be difficult. Moreover, some portion of recent growth is probably a direct consequence of high growth in demand. However, most forecasters believe that the trend growth of productivity has increased.

The productivity surge may stem in part from the recent boom in investment, which has yielded greater amounts of capital per worker. Since 1992, nominal business investment in producers' durable equipment has grown steadily at an average annual rate of more than 10 percent—nearly double the growth rate of nominal GDP. Spending in real terms has accelerated since 1996, averaging more than 13 percent a year. Much of that surge is attributable to computer equip-

Figure 2-2.
Output per Hour Worked in the Nonfarm Business Sector



SOURCES: Congressional Budget Office; Department of Labor, Bureau of Labor Statistics.

ment, partly because nominal spending on computers is increasing rapidly but also because computer prices, when adjusted for improvements in quality, are declining even faster than they had been previously. If investment has made the productivity surge possible, then sustaining the recent growth rates depends on continued high levels of investment.

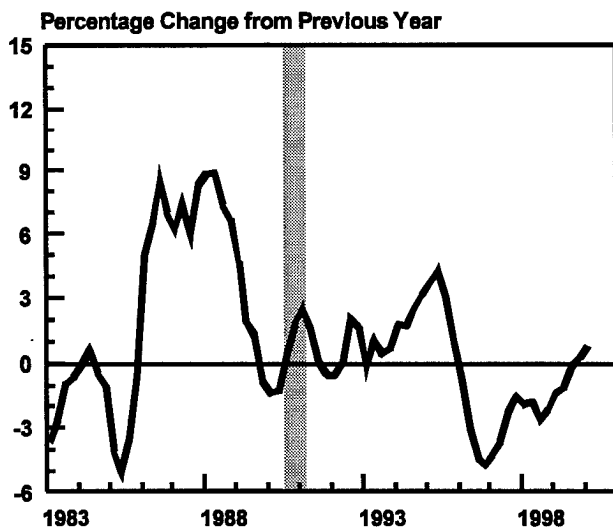
Underlying Inflation Has Remained Muted

Despite rapidly rising demand and extremely tight labor markets, inflation has stayed exceptionally low in recent years. The GDP price index has increased only 1.4 percent over the past year, and excluding the sometimes volatile food and energy components, the CPI has risen just 2.1 percent. Both of those figures represent inflation rates that are about a percentage point lower than they were during the first few years of the current expansion.

One important explanation for the decline in inflation is the surge in productivity growth, which has enabled businesses to limit price increases even though real hourly compensation paid to workers has risen significantly. Average labor costs per unit of output

1. The 1.6 percent trend growth rate for the period since 1973 is considerably higher than the 1.1 percent figure cited in CBO's July update. The difference primarily reflects recent revisions to the national income and product accounts. Those revisions fully incorporated business purchases of software in the category of investment for the first time, and the recent changes in price measurement were applied retroactively to 1978 (see Box 2-1).

Figure 2-3.
Import Price Inflation (Excluding Computer
and Oil Prices)



SOURCES: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis.

in the nonfarm business sector have risen just 1.5 percent over the past year. The productivity surge has been a favorable supply shock that, at least for some time, permits inflation to remain low even as output growth accelerates.

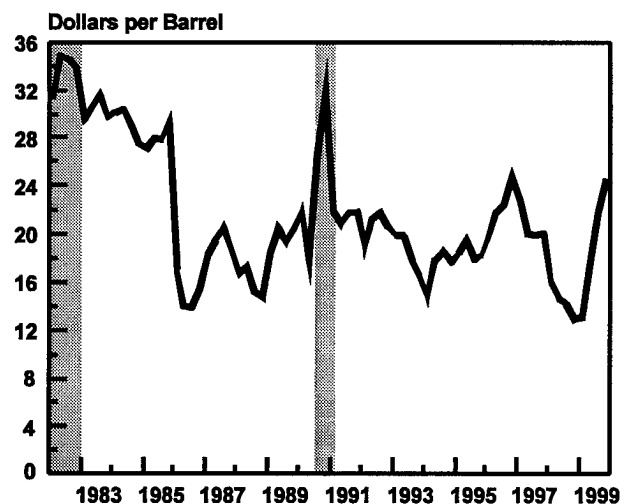
Several other factors have also helped dampen inflation. Weak overseas demand and a rising dollar have pushed prices of imported goods downward. Since the end of 1995, import prices (excluding those for computers and oil) have fallen at an average annual rate of more than 2 percent (see Figure 2-3). Falling import prices have probably also held down prices of domestically produced goods that compete with imports. Furthermore, computer prices (adjusted for improvements in quality) have plummeted at an average annual rate of 28 percent since 1995, roughly double the average rate of decline during the 1986-1995 period. And oil prices fell from around \$25 per barrel at the end of 1996 to about \$12 in the fourth quarter of 1998 (see Figure 2-4).

Some of the forces holding inflation down in recent years reversed course in 1999. Most notably, the price of oil rebounded to more than \$25 per barrel late in the year, causing the CPI for energy to rise about 11 percent relative to where it was a year ago.

Largely because of that increase, overall CPI inflation (that is, including food and energy) has accelerated from about 1.6 percent in 1998 to 2.6 percent over the past year (see Figure 2-5). In addition, with the dollar depreciating modestly, import prices other than those for computers and oil have stopped falling. Thus, their contribution toward keeping inflation low, though still significant, is smaller now than in recent years.

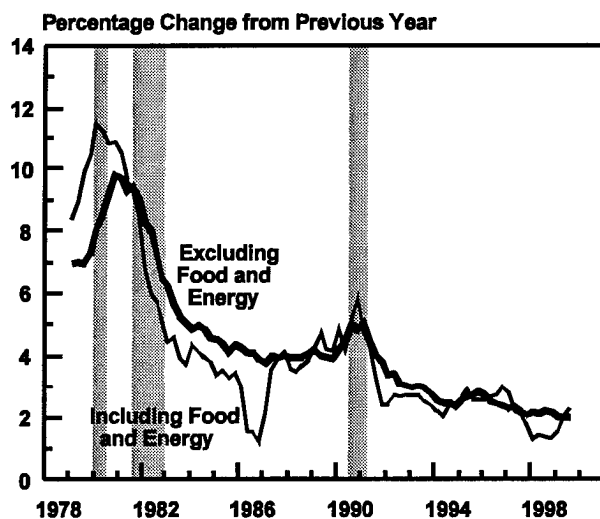
Aside from energy prices, there is no sign of a pickup in CPI inflation. Higher energy costs could affect the prices of other goods and services, but such effects were not visible in the core CPI as of late 1999. One factor holding inflation down in 1999 was a sharp and unexpected slowdown in the CPI for housing costs—both actual apartment rents and imputed rents for owner-occupied units. Because those rental rates account for about 35 percent of the core CPI, that slowing—from 3.4 percent in 1998 to about 2.5 percent in 1999—has reduced the core CPI inflation rate by about 0.3 percentage points. Why that slowing occurred is difficult to understand, given the booming activity in the housing market. But more fundamentally, the continued surge in productivity, together with slower growth in compensation in 1999, has undoubtedly helped keep inflation low. Whether inflation stays low will depend critically on the degree to which

Figure 2-4.
Price of West Texas Intermediate Crude Oil



SOURCES: Congressional Budget Office; *The Wall Street Journal*.

Figure 2-5.
Inflation in the Consumer Price Index



SOURCES: Congressional Budget Office; Department of Labor, Bureau of Labor Statistics.

NOTE: Based on the Bureau of Labor Statistics' research series, which applies current methodology to historical price data.

rising demand continues to put pressure on supply and on how long productivity growth continues to exceed expectations.

The Labor Market Is Extremely Tight

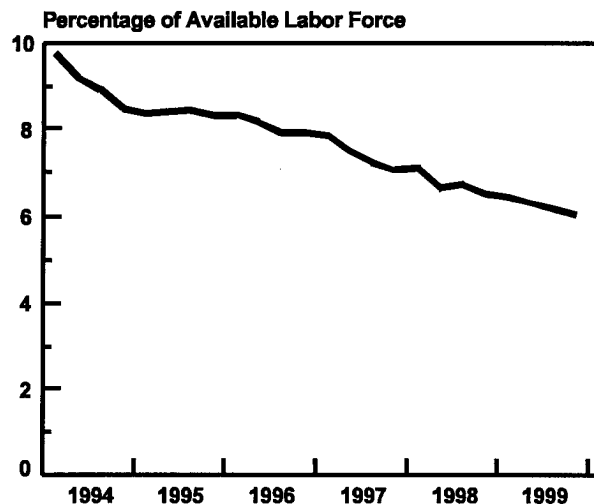
One consequence of excess growth of demand is clearly visible in the labor market, where employers in industries ranging from fast-food restaurants to information technology complain that qualified workers are hard to find. The unemployment rate has fallen to a nearly 30-year low, and a variety of other indicators point to extreme tightness. In announcing its decision to raise the federal funds and discount rates in November, the Federal Reserve noted that "the pool of available workers willing to take jobs has been drawn down further in recent months, a trend that must eventually be contained if inflationary imbalances are to remain in check and economic expansion continue" (see Figure 2-6).²

2. Federal Reserve Board of Governors, press release, November 16, 1999.

The Federal Reserve's action reflects the view that such a low unemployment rate may not be sustainable for very long without generating expectations that inflation will rise. With tight labor markets, significant upward pressure on compensation could build as the costs of attracting and retaining qualified workers rise. Employers might seek to pass those higher costs on to prices, further pressuring growth of compensation and fueling the inflationary spiral. Numerous anecdotes suggest that employers in many industries are competing aggressively for new workers, offering higher starting salaries, better benefits, and, at times, hiring bonuses and stock options. Others are reducing standards, hiring workers with less experience or fewer credentials than they ordinarily would.

Indeed, once the unemployment rate dipped below 5¼ percent—roughly equal to CBO's current estimate of the NAIRU (the nonaccelerating inflation rate of unemployment)—in the first half of 1997, the measured rate of inflation in labor costs picked up noticeably (see Figure 2-7). On a fourth-quarter-to-fourth-quarter basis, growth in total compensation per hour

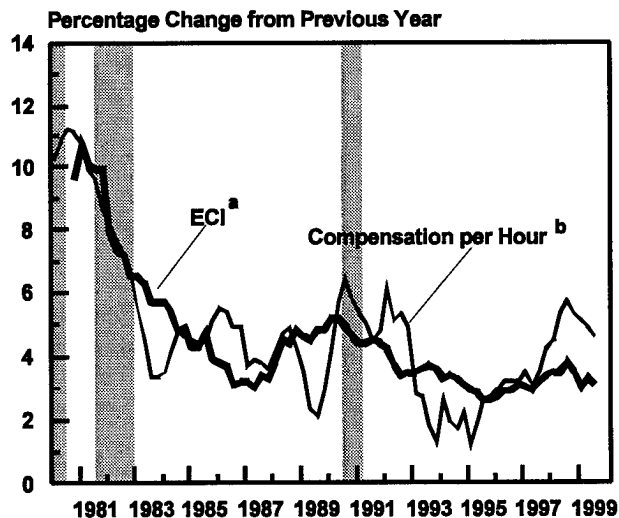
Figure 2-6.
Available Workers



SOURCES: Congressional Budget Office; Department of Labor, Bureau of Labor Statistics.

NOTE: Available workers are unemployed workers, marginally attached workers (those not in the labor force but available to work), and one-half of the number of workers who involuntarily work part time for economic reasons. The available labor force is the sum of workers in the labor force and workers who are marginally attached to it.

Figure 2-7.
Alternative Measures of Hourly Compensation



SOURCES: Congressional Budget Office; Department of Labor, Bureau of Labor Statistics.

- a. The employment cost index of total compensation for workers in private industry.
- b. Compensation per hour in the nonfarm business sector.

in the private sector, as measured by the employment cost index (ECI), rose from 2.6 percent in 1995 to 3.5 percent in 1998. And the increases in hourly compensation in the nonfarm business sector were much more dramatic, rising from 2.7 percent to 5.3 percent over the same period. Those measures differ in part because the latter measure includes at least a portion of the hiring bonuses and stock options given to employees, but the former does not.³

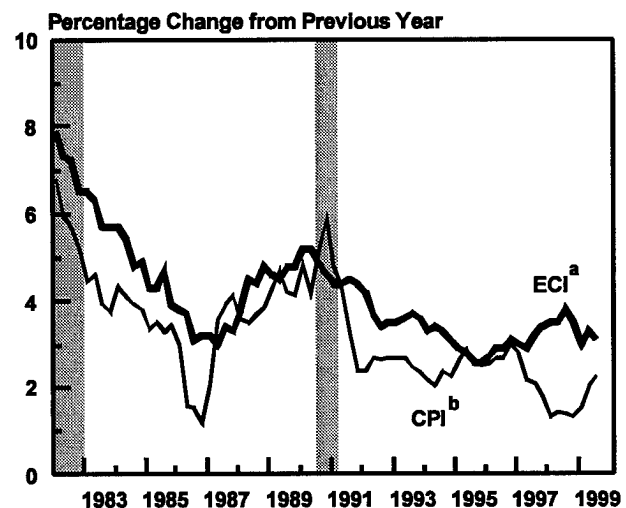
Since the middle of 1998, compensation growth has slowed unexpectedly even though labor markets have continued to tighten. During 1999, year-over-year ECI growth slowed to 3.1 percent through the third quarter, and hourly compensation in the nonfarm business sector slowed to 4.6 percent. One likely explanation is the sharp slowdown in CPI inflation during 1998, as smaller nominal gains in wages were

needed to compensate workers for past or expected increases in the cost of living (see Figure 2-8). In addition, employers' increasing use of stock options and other nontraditional forms of compensation poses problems in measuring compensation growth. The ECI does not capture them at all, and the nonfarm business measure of compensation does so only partially.

Since its July forecast, CBO has significantly reduced its estimate of the NAIRU—to 5.2 percent, down from 5.5 percent in July. The reevaluation was prompted by the failure of price inflation to accelerate as expected given tight labor markets, even after accounting for the temporary influences of import and energy prices on inflation.

Although economists have found little convincing evidence that the wage-setting process has changed during the 1990s compared with that of earlier de-

Figure 2-8.
Inflation in Consumer Prices and Compensation per Hour



SOURCES: Congressional Budget Office; Department of Labor, Bureau of Labor Statistics.

- a. The employment cost index of total compensation for workers in private industry.
- b. The consumer price index for all urban consumers, with current methodology applied to historical price data (CPI-U-RS).

3. For a discussion of these measurement issues, see David Lebow and others, *Recent Trends in Compensation Practices*, Finance and Economics Discussion Series No. 1999-32 (Board of Governors of the Federal Reserve System, July 1999).

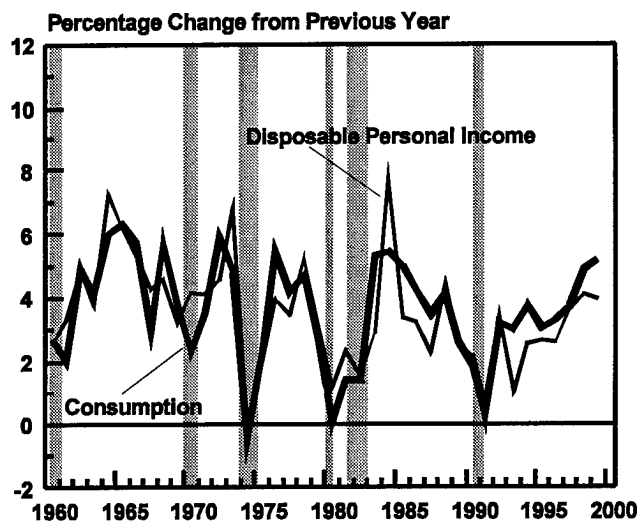
acades, other structural changes in the labor market may have permanently reduced the rate of unemployment that would be associated with upward pressure on wages. One explanation for a lower NAIRU is the expansion in the prison population over the past two decades, which has removed from the labor force a large number of young, unskilled men who collectively would almost certainly have exhibited much higher unemployment than the general population. Another structural change works by improving the labor market's efficiency rather than by removing hard-to-employ people from the labor force. The growth of the temporary-help industry has facilitated the matching of job seekers to available positions both directly and by screening prospective permanent employees.⁴ In addition, the growing use of the Internet to post vacancies and search for jobs may be enhancing the efficiency of the market. Finally, the increased computerization of some jobs (for example, that of retail clerks) may have allowed employers to hire very unskilled workers who otherwise would have had difficulty finding a job.

Nonetheless, the current unemployment rate remains well below most estimates of the NAIRU. Thus, some renewed acceleration in compensation growth is likely, particularly because rising energy prices have boosted CPI inflation in the past year. The experience of the past several years suggests, however, that how such an acceleration will affect price inflation is not clear; its effects may be offset by faster productivity growth, lower profits, or unrelated declines in other prices. Consequently, the NAIRU plays only a minor role in CBO's short-run forecast for inflation, though a more important one in wage projections. CBO still uses it as a benchmark for its medium-term projections.

Consumer Spending Continues to Surge

In the past two years, the growth of real consumer spending has averaged 5 percent, well above its post-

Figure 2-9.
Consumption and Disposable Personal Income



SOURCES: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis.

NOTE: Consumption and disposable personal income are measured in 1996 dollars. Values for 1999 are CBO estimates.

1973 average annual rate of slightly over 3 percent. Though broadly based, the strength in consumer spending is most noticeable in durable goods (including motor vehicles) and apparel. Spending outpaced growth in disposable personal income throughout most of the past decade (see Figure 2-9). As a result, the personal saving rate fell to a record low of just over 2 percent in late 1999.

The booming stock market largely accounts for the surge in consumer spending and the decline in the saving rate. Since the end of 1994, broad-based stock indexes, such as the S&P 500, have roughly tripled (see Figure 2-10). At the end of September 1999, the value of stock-market assets held by households was about \$9 trillion higher than it had been at the end of 1994. Recent research indicates that consumer spending increases by between 3 and 4 cents per dollar of additional stock-market wealth, so the increase in wealth from equities since 1994 has added about 1 percentage point to the annual growth of consumer spending over that period and correspondingly reduced

4. These arguments are discussed at some length in Lawrence F. Katz and Alan B. Krueger, "The High-Pressure U.S. Labor Market of the 1990s," *Brookings Papers on Economic Activity*, no. 1 (1999).

The graph displays the U.S. economy's performance on a log scale from 1960 to 2000. The y-axis represents the index value, with major ticks at 0, 50, 100, 500, 1,000, 1,500, and 2,000. The x-axis shows years from 1960 to 2000 in 5-year increments. The index starts around 60 in 1960, rises to about 100 by 1970, and then fluctuates between 100 and 200 until the early 1980s. A sharp decline occurs in the early 1980s, reaching a low of about 100 in 1982, followed by a recovery to about 400 by 1985. The index continues to rise steadily, reaching approximately 1,500 by 2000. Vertical shaded regions indicate periods of economic recession.

the saving rate.⁵ If equity prices stopped rising, the effect of equity wealth on spending would diminish and ultimately vanish, though at what pace is not entirely clear. Some estimates suggest that the full impact would occur quite quickly—within one or two quarters—but others imply a much more gradual adjustment over several years.

Low mortgage interest rates, together with the factors responsible for boosting consumption, have also fueled a housing boom. From 1997 through the first half of 1999, real spending on residential investment surged at an average annual rate of nearly 8 percent, compared with 3 percent to 4 percent over the past two decades. Sales of both new and existing single-family homes reached all-time highs in late 1998 or early 1999, reflecting the highest affordability index since 1973 (see Figure 2-11). That index mea-

The housing market has cooled somewhat now that interest rates have rebounded. The average rate of a conventional 30-year mortgage, which was below 7 percent at the beginning of 1999, was close to 8 percent at the end of the year. As a result, by November the affordability index had fallen 8.5 percent from its recent peak. Home sales have dipped below their peak as well, although they remain quite high; and in recent months, new home construction has fallen below its level of a year ago.

The gloomy cloud hanging over the global economy during 1998 and early 1999 has receded significantly.

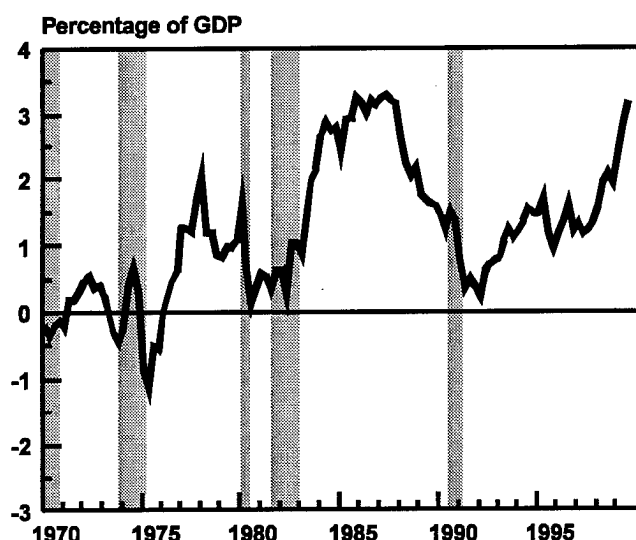
The graph displays two data series over time from 1985 to 1999. The Affordability Index (left scale) starts at approximately 90 in 1985, rises to a peak of about 115 in 1988, and then fluctuates between 105 and 135 until the recession. During the recession, it drops sharply to around 85 in 1991 and recovers to about 140 by 1999. Home Sales (right scale) start at approximately 3.8 million units in 1985, rise to a peak of about 5.0 million units in 1988, and then fluctuate between 4.5 and 6.0 million units until the recession. During the recession, they drop sharply to around 3.5 million units in 1991 and recover to about 6.2 million units by 1999.

Year	Affordability Index (Left scale)	Home Sales (Right scale)
1985	90	3.8
1986	100	4.2
1987	110	4.8
1988	115	5.0
1989	105	4.5
1990	100	4.2
1991	85	3.5
1992	100	4.0
1993	130	5.0
1994	125	4.5
1995	135	5.0
1996	125	4.8
1997	130	5.2
1998	140	6.0
1999	135	6.2

b. Sales of new and existing single-family homes.

5. See Sydney Ludvigson and Charles Steinidel, "How Important Is the Stock Market Effect on Consumption?" *Economic Policy Review*, Federal Reserve Bank of New York, vol. 5, no. 2 (July 1999), pp. 29-51; and Martha Starr-McCluer, *Stock Market Wealth and Consumer Spending*, Finance and Economics Discussion Series No. 1998-20 (Board of Governors of the Federal Reserve System, May 1998).

Figure 2-12.
The Trade Deficit



SOURCES: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis, and Bureau of the Census.

NOTE: Values are measured on a balance-of-payments basis as opposed to a national income and product account basis.

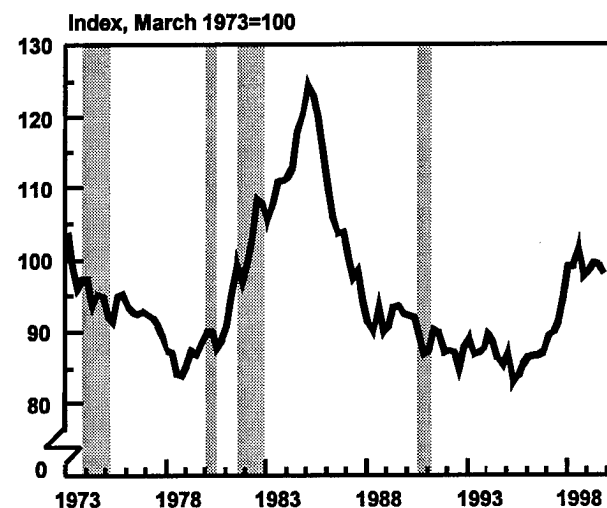
Economic recovery, though still not firmly established, is under way in many parts of the world outside the United States. The economies of Canada and Mexico, helped by the booming U.S. economy, are growing briskly. Growth in Europe, though not spectacular, is picking up. Japan's recession appears to have ended, and the countries hit by the Asian crisis are reviving. The contractions in the weakest South American economies are becoming less severe. Overall, the average rate of growth in the 21 countries that are the United States' largest export markets plunged from 4.1 percent in 1997 to 1.2 percent in 1998 (weighted by the countries' share of U.S. exports), then rebounded to more than 4 percent in the first half of 1999.

As the threat of international financial turmoil has diminished, the attention of investors as well as policymakers in the international arena has shifted to the U.S. external imbalance. The U.S. current-account deficit—primarily the sum of the trade deficit and the interest payment on U.S. net international liabilities—soared to \$360 billion (3.9 percent of GDP) in the third quarter of 1999, a new postwar record both in dollar terms and as a share of GDP. That

rise largely reflects the escalating trade deficit, which has moved from approximate balance in 1992 to \$315 billion (3.4 percent of GDP) in the third quarter of 1999 (see Figure 2-12).

It is no coincidence that the trade deficit soared after the Asian crisis erupted in July 1997. As many Asian and other emerging currencies plunged, the dollar surged on a trade-weighted basis (see Figure 2-13). Foreign capital seeking a "safe haven" poured into the United States. In addition, the U.S. economy's boom in productivity created higher risk-adjusted rates of return than were available abroad. Capital inflows and the Federal Reserve's easing in the face of a potential global financial crisis reduced the cost of capital in the United States, helping to sustain the investment boom. The dollar's surge also lowered import prices, adding to the already powerful forces—rising equity prices and disposable income—that were boosting consumer spending. The U.S. trade deficit escalated as imports rose along with investment and consumer demand and as exports stagnated with the recession abroad and the rising dollar.

Figure 2-13.
The U.S. Exchange Rate



SOURCES: Congressional Budget Office; Federal Reserve Board.

NOTE: Weighted average of the foreign exchange value of the U.S. dollar against the currencies of a large group of major U.S. trading partners, adjusted for differences in inflation measured by the consumer price index. The weights are derived from U.S. export shares and from U.S. and foreign income shares.

The growing external imbalance may raise concerns that it is unsustainable, that a correction will occur, and that the correction could take the form of a significant drop in the dollar's value that would in turn lead to large increases in interest rates. On a trade-weighted basis, the dollar is strong—it has depreciated against the yen but has appreciated against the euro—and is likely to adjust downward to help lower the current-account deficit to a more sustainable path.

Nevertheless, the dollar is unlikely to fall abruptly. Although economic recovery abroad may prompt some international investors to rebalance their portfolios and pull some capital out of this country, the adjustment is unlikely to be extraordinary. The U.S. economy is still growing rapidly, whereas the recovery in foreign economies is not yet firmly established. In addition, the Federal Reserve has begun to raise U.S. interest rates, whereas many foreign central banks have kept rates relatively low to sustain fragile recoveries. The net inflow of capital is likely to continue under these conditions, which will tend to support the dollar. Finally, as the prospects for foreign growth improve, demand for U.S. exports will probably increase. As long as that improvement occurs, the burden of reducing the trade deficit will not rest solely on the dollar's adjustment.

The Economic Forecast for 2000 and 2001

In CBO's short-term forecast, real GDP growth moderates to an average of about 3 percent over the next two years (see Table 2-2). That moderation mainly reflects a deceleration in consumer spending and residential construction, as a tight labor supply limits growth in employment and disposable income and as the wealth effect from past increases in stock prices diminishes. Core CPI inflation is expected to rise slightly, primarily because of the strong growth of demand and the anticipated increases in prices of imported goods. The unemployment rate is forecast to remain near its current, very low, level of 4.1 percent.

CBO's forecast for the next two years is more optimistic than the one it published in July 1999 (see

Table 2-1 on page 27). The forecast of growth in nominal GDP has been revised moderately upward for both 2000 and 2001. That revision reflects a stronger forecast of real growth and a slight reduction in the forecast for inflation in the GDP price index in both years. The higher projected levels of nominal GDP are mostly the result of revisions to the national income and product accounts, which now fully incorporate investment in software (see Box 2-1).

The current forecast is about the same as that of the *Blue Chip* consensus, an average of the forecasts produced by approximately 40 to 50 private-sector economists (see Table 2-3 on page 40). Compared with the *Blue Chip* consensus, CBO's forecast of real GDP growth is slightly less optimistic for 2000 and about the same for 2001. CBO's forecast is lower than the *Blue Chip's* for the GDP price index but is almost the same for the CPI.

GDP Growth

CBO expects real GDP growth to slow only modestly from its 3.9 percent rate in 1999, to 3.3 percent in 2000 and 3.1 percent in 2001. That outlook would not cause the unemployment rate to change much over the next two years from its current low level.

Households. The growth of real consumer spending is likely to decelerate over the forecast horizon. Gains in real disposable income will be limited as already very tight labor markets constrain the ability of the number of workers to grow much faster than the working-age population. In addition, assuming that stock prices do not appreciate as rapidly between mid-1999 and mid-2001 as they did during the previous four years, the wealth effect on consumer spending should diminish. Nonetheless, consumer spending will remain a significant contributor to economic growth over the forecast horizon.

Residential investment has already dipped in response to higher mortgage rates, which are a consequence of recent Federal Reserve actions, and is expected to fall farther in 2000. Aside from the direct impact of additional monetary tightening, slower increases in disposable income and household wealth will also dampen housing markets. Declining home

purchases will in turn further slow consumption by diminishing spending on furnishings and appliances.

Business Investment. Real business spending on producers' durable equipment is expected to remain strong, but less so than in recent years. That slowing in part reflects weaker growth in consumer demand. Increased downward pressure on corporate profits is also likely to dampen business investment over the next two years, as the combination of the recent increases in borrowing and interest rates causes interest payments to cut into profits.

The Foreign Sector. CBO expects that in 2000, the trade deficit will continue to grow, but more slowly than it has for the past several years. The deficit is

expected to reach a plateau in 2001 and will therefore no longer act as a drag on output growth. Exports will expand more rapidly than in the past two years as the foreign recovery gains strength and the dollar's exchange value gradually declines. Growth in imports is expected to remain brisk, but less so than in the recent past.

Unemployment and Inflation

In CBO's forecast, the unemployment rate flattens at about its current 4.1 percent rate in 2000, then edges up to 4.3 percent by the end of 2001. That forecast is consistent with real GDP growing at a slightly slower pace than potential GDP over the next two years. It

Table 2-2.
The CBO Forecast for 2000 and 2001

	Estimated 1999 ^a	Forecast	
		2000	2001
Fourth Quarter to Fourth Quarter (Percentage change)			
Nominal GDP	5.3	4.6	4.7
Real GDP ^b	3.9	2.9	3.0
GDP Price Index ^c	1.4	1.7	1.6
Consumer Price Index ^d	2.6	2.3	2.5
Consumer Price Index Excluding Food and Energy ^d	2.1	2.3	2.5
Calendar Year Average (Percent)			
Real GDP ^b	3.9	3.3	3.1
Unemployment Rate	4.2	4.1	4.2
Three-Month Treasury Bill Rate	4.6	5.4	5.6
Ten-Year Treasury Note Rate	5.6	6.3	6.4

SOURCES: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis; Department of Labor, Bureau of Labor Statistics; Federal Reserve Board.

a. Estimates of nominal GDP, real GDP, and the GDP price index are based on data for the first three quarters of 1999 and on CBO's expectations for the fourth quarter of 1999. The consumer price index, the unemployment rate, the three-month Treasury bill rate, and the 10-year Treasury note rate are actual values for 1999.

b. Based on chained 1996 dollars.

c. The GDP price index is virtually the same as the implicit GDP deflator.

d. The consumer price index for all urban consumers.

implies that the unemployment rate will remain well below the NAIRU through 2001, with growth in hourly compensation picking up.

The core CPI inflation rate is expected to edge up slightly over the next two years from its recent pace of 2.1 percent. The disinflationary effect of falling import prices during the past few years will fade away in the face of mild depreciation of the dollar and acceleration of growth in global output. And the increase

in oil prices that has already occurred may put upward pressure on some other prices.

Interest Rates

In CBO's forecast, short-term interest rates average 5.4 percent in 2000 and 5.6 percent in 2001. That forecast assumes that in light of very tight labor markets, the Federal Reserve will lift the federal funds rate

Box 2-1.

The 1999 Revision of the National Income and Product Accounts

In October 1999, the Bureau of Economic Analysis (BEA) released revised historical data for the national income and product accounts (NIPAs), the system of accounts that provides a comprehensive view of the economy.¹ The NIPAs include national estimates of gross domestic product, prices, and incomes. The revisions raised both the level and the growth rate of nominal and real GDP over the past 40 years, and because the data on hours worked were not revised, the upward revision to real GDP boosted the average growth rate of productivity for that period. Corporate profits and the personal saving rate were also revised upward. However, because the bulk of the differences stemmed from changes in definitions rather than new information (source data) or better estimating techniques, they do not significantly alter the view of the economy.

BEA regularly revises the NIPA data to incorporate new information about economic activity, introduce new methodologies, and update definitions to reflect changes in the U.S. economy. The October revision incorporated new information from the 1992 benchmark input/output accounts, preliminary infor-

mation from the 1996 annual update of those accounts, data from the 1997 economic censuses, and recent revisions to the source data for 1998 and early 1999.

The major methodological change was to carry back to 1978 the use of improved measures of some consumer price indexes. In recent years, statisticians have determined that some of the price indexes that BEA used to deflate nominal spending by consumers were biased upward; that is, they tended to overstate inflation. BEA had previously used the improved measures—the geometric mean price indexes—for the NIPA data only from 1995 to the present.

BEA made numerous definitional changes as well, but the two that had the most significant effect on the NIPA data were the inclusion of software as an investment good and the reclassification of government employees' retirement plans. Previously, business and government expenditures on software did not show up directly in GDP because software was treated as an intermediate good; its costs were embodied in the goods and services sold by businesses but were not considered a part of final demand for goods and services. The inclusion of software in final demand was the major reason GDP measures were revised upward.

Government employees' retirement plans had previously been classified in the NIPAs as social insurance funds within the government sector, but they are now included in personal income. Government contributions and payouts for those retirement plans

1. See Brent R. Moulton, Robert P. Parker, and Eugene P. Seskin, "A Preview of the 1999 Comprehensive Revision of the National Income and Product Accounts: Definitional and Classificational Changes," *Survey of Current Business* (August 1999), pp. 7-20; Brent R. Moulton and Eugene P. Seskin, "A Preview of the 1999 Comprehensive Revision of the National Income and Product Accounts: Statistical Changes," *Survey of Current Business* (October 1999), pp. 6-17; and Eugene P. Seskin, "Improved Estimates of the National Income and Product Accounts for 1959-98: Results of the Comprehensive Revision," *Survey of Current Business* (December 1999), pp. 15-43.

by 50 basis points during the first half of 2000 with the aim of heading off a significant acceleration of inflation. As of early January, the federal funds futures market incorporated an even larger increase. In CBO's forecast, the rate on three-month Treasury bills reaches 5.6 percent by midyear and remains there through 2001. The rate on 10-year Treasury notes is forecast to rise from 5.6 percent in 1999 to 6.3 percent in 2000 and 6.4 percent in 2001. Long-term rates were already above that level in early January.

The Medium-Term Outlook

CBO projects that real GDP will grow at an average annual rate of 2.8 percent during the 2000-2010 period (see Tables 2-4 and 2-5). That growth compares with slightly higher growth of 3.1 percent for potential output. Since the current estimated level of real GDP exceeds its potential level, actual GDP must grow at a

Box 2-1. Continued

had been classified as government receipts and expenditures, and personal contributions were counted as government receipts and deducted from personal income. By reclassifying those plans within the household sector (as personal income), the NIPA measures of the government surpluses were lowered (since the plans have been running surpluses), and the measure of personal saving was correspondingly raised. The personal saving rate for 1998, for example, was revised from 0.5 percent to 3.7 percent, largely because of the reclassification of government retirement plans.

The effect of the revisions on growth rates is shown in the table below. Revisions before 1992 were almost entirely caused by changes in definitions, whereas new source data account for more than half of the change to the growth of nominal GDP for the 1992-1998 period.

**Changes in Average Growth Rates
(In percentage points)**

	1959- 1992	1992- 1998	1959- 1998
Real GDP	0.18	0.37	0.21
GDP Price Index	-0.15	-0.08	-0.14
Nominal GDP	0.04	0.30	0.08
Source of Change to Nominal GDP for the Period			
Definitions	0.04	0.12	0.05
New source data	0	0.18	0.03

The revisions did not provide any new information about the causes of the rapid growth in federal revenues between 1995 and 1997, but they did shed some light on revenues in 1998. The history of NIPA wage and salary disbursements through 1997 was essentially unchanged by the revision. However, because of new source data, wages and salaries were \$36 billion higher in 1998 (definitional changes were not important for the revisions to wages and salaries). That revision helps explain the higher personal income tax liabilities for that year, reducing the importance of other arguments for the rapid growth in liabilities. Part of that strength in liabilities was previously attributed to a possible further skewing of the income of households facing higher marginal tax rates (see Chapter 3 for a more detailed discussion).

Corporate profits (before tax) were revised because of definitional changes and new source data, but the revisions do not indicate that the prerevision view of corporate profits was misleading. Corporate profits in 1998 were higher by \$64 billion, with definitional changes accounting for \$55 billion and new source data for the other \$9 billion.

Aside from those for 1998, the revisions had virtually no effect on the trend growth of the two NIPA income categories—wage and salary disbursements and corporate (book) profits—that figure prominently in interpreting and projecting federal revenues. The growth of the sum of those two income shares from 1959 to 1997 was raised by less than 0.05 percent a year and from 1992 to 1997 by less than 0.02 percent a year.

Table 2-3.
Comparison of CBO and *Blue Chip* Forecasts for 2000 and 2001 (By calendar year, in percent)

	Estimated 1999 ^a	Forecast	
		2000	2001
Growth of Nominal GDP			
CBO	5.4	5.0	4.8
<i>Blue Chip</i>	5.4	5.3	4.9
Growth of Real GDP			
CBO	3.9	3.3	3.1
<i>Blue Chip</i>	3.9	3.6	3.0
Growth of the GDP Price Index ^b			
CBO	1.4	1.6	1.6
<i>Blue Chip</i>	1.4	1.7	1.9
Growth of the CPI ^c			
CBO	2.2	2.5	2.4
<i>Blue Chip</i>	2.2	2.5	2.5
Unemployment Rate			
CBO	4.2	4.1	4.2
<i>Blue Chip</i>	4.2	4.1	4.3
Three-Month Treasury Bill Rate			
CBO	4.6	5.4	5.6
<i>Blue Chip</i>	4.6	5.6	5.6
Ten-Year Treasury Note Rate			
CBO	5.6	6.3	6.4
<i>Blue Chip</i>	5.7	6.4	6.3

SOURCES: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis; Department of Labor, Bureau of Labor Statistics; Federal Reserve Board; Aspen Publishers, Inc., *Blue Chip Economic Indicators* (January 10, 2000).

a. Estimates of nominal GDP, real GDP, and the GDP price index are based on data for the first three quarters of 1998 published November 24, 1999, and on CBO's expectations for the fourth quarter of 1999. The consumer price index, the unemployment rate, the three-month Treasury bill rate, and the 10-year Treasury note rate are actual values for 1999.

b. The GDP price index is virtually the same as the implicit GDP deflator.

c. The consumer price index for all urban consumers.

slower pace than potential in order to close the gap (see Figure 2-14). CBO expects inflation as measured by the CPI to average 2.5 percent, and the unemployment rate to be higher on average than it has been in the past three years.

CBO's medium-term projections do not explicitly incorporate specific cyclical recessions and recoveries. Instead, to reflect the likelihood that at least one cyclical episode will occur in any 10-year interval, CBO attempts to average into its projection the effects of a

typical cycle. The medium-term projections extend historical trends in such underlying factors as the growth of the labor force, the growth of productivity, the rate of national saving, and income shares. CBO's projections of real GDP, inflation, real interest rates, and tax revenues depend critically on those underlying trends.

The projections assume that growth of labor productivity continues to be strong, though less so than in the past four years. Productivity growth, which had

Table 2-4.
CBO Economic Projections for Calendar Years 2000-2010

	Estimated 1999 ^a	Forecast		Projected								
		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Nominal GDP (Billions of dollars)	9,235	9,692	10,154	10,610	11,069	11,544	12,054	12,589	13,148	13,734	14,362	15,024
Nominal GDP (Percentage change)	5.4	5.0	4.8	4.5	4.3	4.3	4.4	4.4	4.4	4.5	4.6	4.6
Real GDP ^b (Percentage change)	3.9	3.3	3.1	2.8	2.6	2.6	2.7	2.7	2.7	2.7	2.9	2.9
GDP Price Index ^c (Percentage change)	1.4	1.6	1.6	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
Consumer Price Index ^d (Percentage change)	2.2	2.5	2.4	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Unemployment Rate (Percent)	4.2	4.1	4.2	4.4	4.7	4.8	5.0	5.0	5.1	5.2	5.2	5.2
Three-Month Treasury Bill Rate (Percent)	4.6	5.4	5.6	5.3	4.9	4.8	4.8	4.8	4.8	4.8	4.8	4.8
Ten-Year Treasury Note Rate (Percent)	5.6	6.3	6.4	6.1	5.8	5.7	5.7	5.7	5.7	5.7	5.7	5.7
Tax Bases (Billions of dollars)												
Corporate profits ^e	840	829	833	829	839	860	885	919	954	991	1,028	1,060
Wages and salaries	4,475	4,732	4,959	5,183	5,408	5,641	5,890	6,150	6,422	6,706	7,009	7,328
Tax Bases (Percentage of GDP)												
Corporate profits ^e	9.1	8.6	8.2	7.8	7.6	7.4	7.3	7.3	7.3	7.2	7.2	7.1
Wages and salaries	48.5	48.8	48.8	48.9	48.9	48.9	48.9	48.9	48.8	48.8	48.8	48.8

SOURCES: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis; Department of Labor, Bureau of Labor Statistics; Federal Reserve Board.

NOTE: Percentage changes are year over year.

a. Estimates of nominal GDP, real GDP, the GDP price index, and the tax bases are based on data for the first three quarters of 1999 published November 24, 1999, and on CBO's expectations for the fourth quarter of 1999. The consumer price index, the unemployment rate, the three-month Treasury bill rate, and the 10-year Treasury note rate are actual values for 1999.

b. Based on chained 1996 dollars.

c. The GDP price index is virtually the same as the implicit GDP deflator.

d. The consumer price index for all urban consumers.

e. Corporate profits are book profits.

Table 2-5.
CBO Economic Projections for Fiscal Years 2000-2010

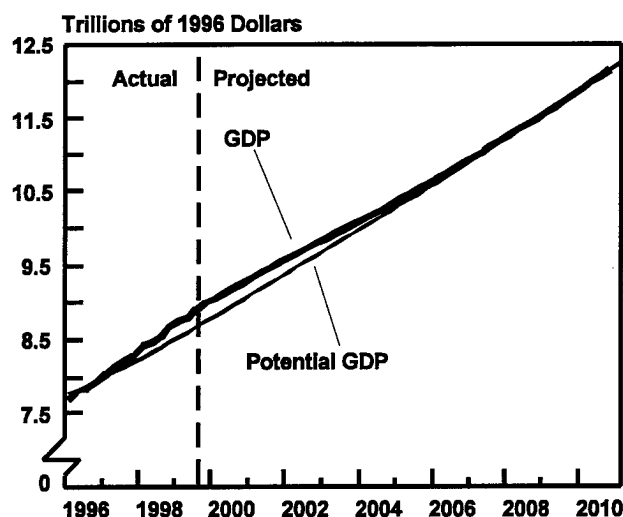
	Actual 1999	Forecast		Projected								
		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Nominal GDP (Billions of dollars)	9,116	9,583	10,038	10,496	10,954	11,422	11,924	12,453	13,006	13,583	14,202	14,856
Nominal GDP (Percentage change)	5.6	5.1	4.7	4.6	4.4	4.3	4.4	4.4	4.4	4.4	4.6	4.6
Real GDP ^a (Percentage change)	4.1	3.6	3.0	2.9	2.6	2.6	2.7	2.7	2.7	2.7	2.9	2.9
GDP Price Index ^b (Percentage change)	1.3	1.5	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
Consumer Price Index ^c (Percentage change)	1.9	2.6	2.4	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Unemployment Rate (Percent)	4.3	4.1	4.2	4.4	4.6	4.8	4.9	5.0	5.1	5.2	5.2	5.2
Three-Month Treasury Bill Rate (Percent)	4.4	5.3	5.6	5.4	5.0	4.8	4.8	4.8	4.8	4.8	4.8	4.8
Ten-Year Treasury Note Rate (Percent)	5.3	6.2	6.4	6.2	5.9	5.7	5.7	5.7	5.7	5.7	5.7	5.7
Tax Bases (Billions of dollars)												
Corporate profits ^d	819	835	830	829	836	855	878	910	945	982	1,020	1,052
Wages and salaries	4,403	4,675	4,902	5,127	5,352	5,581	5,826	6,084	6,353	6,633	6,932	7,247
Tax Bases (Percentage of GDP)												
Corporate profits ^d	9.0	8.7	8.3	7.9	7.6	7.5	7.4	7.3	7.3	7.2	7.2	7.1
Wages and salaries	48.3	48.8	48.8	48.8	48.9	48.9	48.9	48.9	48.8	48.8	48.8	48.8

SOURCES: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis; Department of Labor, Bureau of Labor Statistics; Federal Reserve Board.

NOTE: Percentage changes are year over year.

- a. Based on chained 1996 dollars.
- b. The GDP price index is virtually the same as the implicit GDP deflator.
- c. The consumer price index for all urban consumers.
- d. Corporate profits are book profits.

Figure 2-14.
GDP and Potential GDP



SOURCES: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis.

NOTE: From 1999 through 2010, potential GDP is projected to grow at a 3.1 percent annual rate and GDP at a 2.8 percent rate.

averaged 1.6 percent since 1973, surged to an average 2.6 percent rate during the 1996-1999 period. The critical question is whether and to what extent that recent surge represents a lasting break in the trend of productivity growth. Some evidence suggests that a break in the trend has occurred, but the currently available data are insufficient to provide a definitive answer (see Appendix A). CBO's projections give considerable weight to the possibility that the experience of the past few years represents such a break. Given the short period of data available since any break occurred, however, CBO's projections are even more uncertain than usual (see Chapter 5).

Real Potential GDP

Over the 2000-2010 projection period, potential GDP rises at an average rate of 3.1 percent. CBO's projection assumes that potential GDP grows at about a 3.3 percent annual rate through 2002. However, because of slower capital accumulation and slightly slower growth in the labor force, CBO assumes that potential GDP settles down to a 2.9 percent growth rate after 2006.

The 3.1 percent average growth rate over the entire period is about 0.4 percentage points faster than was assumed last summer.⁶ About one-quarter of that change stems from a revision to the growth of the potential labor force, which rises 1.1 percent on average between 1999 and 2010 (see Table 2-6). CBO projects the labor force with reference to a consensus of government and private-sector forecasters. Since the summer, several of those forecasters have raised their projections for the labor force, and CBO has followed suit.

The rest of the revision to the projection for potential GDP growth stems from a small upward revision to the growth of the capital stock, which climbs 4.4 percent on average during the projection period, and a larger upward revision to total factor productivity (TFP)—the portion of actual growth that cannot be attributed to greater inputs of capital and labor. Capital accumulates at a faster rate largely because the Bureau of Economic Analysis now includes business purchases of software as capital assets rather than as intermediate inputs. CBO projects that the trend growth of TFP will average 1.4 percent through 2010, about 0.3 percentage points faster than was assumed last summer.

About 0.2 percentage points of the upward revision to TFP arises from a change in CBO's method of computing potential GDP. The new method better reflects the recent sharp increase in the pace of technical change in the production of computers and the resulting effect on computer prices. As measured in the national income and product accounts (NIPAs), computer prices have declined continuously since the 1970s—a trend that has accelerated in recent years. Computer prices fell at an average annual rate of 15 percent between the early 1970s and 1995 but at a 28 percent rate between 1995 and 1999. CBO's methodological change removes the effects of falling computer prices from the historical data before estimating a partial measure of potential output and then adds the effects of those changes back into the estimate of potential GDP (see Appendix A).

6. See Congressional Budget Office, *Extended Discussion of CBO's July 1999 Economic Outlook* (July 1, 1999), available at www.cbo.gov.

CBO made two other changes, which on balance raise the projected trend growth of TFP by 0.1 percentage point. The comprehensive NIPA revision raised the growth rate for TFP by about 0.2 percentage points, and CBO carries that trend forward in its projections. However, analysis of the new data indi-

cated that the adjustment CBO had made for methodological changes in price measurement in its July report had overstated trend growth in TFP by about 0.1 percentage point, so the projection is corrected for that error (see Box 2-2 on page 46).

Table 2-6.
Key Assumptions for the Revised Projection of Potential Output (By calendar year)

	Average Annual Growth Rate (Percent)					
	1960-1999	1960-1969	1969-1980	1980-1990	1990-1999	1999-2010 (Projection)
Overall Economy						
Working-Age Population	1.4	1.4	2.0	1.1	1.0	1.0
Potential Labor Force	1.8	1.6	2.7	1.6	1.2	1.1
Potential Labor Force Productivity ^a	1.5	2.5	0.7	1.4	1.7	1.9
Excluding new price indexes and computer quality	1.5	2.5	0.7	1.4	1.5	1.7
Effect of new price indexes and computer quality ^b	n.a.	n.a.	n.a.	n.a.	0.1	0.2
Potential Real Output (GDP)	3.3	4.2	3.4	3.0	2.9	3.1
Memorandum:						
Real Output (GDP)	3.5	4.6	2.9	3.2	3.2	2.8
Nonfarm Business Sector						
Potential Employment	2.0	1.7	2.8	1.7	1.4	1.2
Potential Hours Worked	1.6	1.3	2.0	1.6	1.5	1.2
Capital Input ^c	3.9	4.2	4.1	3.6	3.6	4.4
Potential Total Factor Productivity	1.3	2.1	1.2	0.9	1.2	1.4
Potential Labor Force Productivity ^d	2.0	3.0	1.8	1.5	1.9	2.3
Excluding new price indexes and computer quality	2.0	3.0	1.8	1.5	1.7	2.0
Effect of new price indexes and computer quality ^b	n.a.	n.a.	n.a.	n.a.	0.2	0.3
Potential Real Output	3.7	4.3	3.9	3.2	3.4	3.5

SOURCE: Congressional Budget Office using data from the Department of Labor, Bureau of Labor Statistics, and the Department of Commerce, Bureau of Economic Analysis.

NOTES: The years marking the ends of historical periods (except 1999) are years in which the business cycle peaked.

n.a. = not applicable.

a. Growth in potential output per member of the labor force.

b. Adjustments to potential productivity to account for methodological changes to price measures and technological change in the computer industry.

c. Estimated by CBO.

d. Growth in potential output per hour in the nonfarm business sector

Unemployment, Inflation, and Interest Rates

The projected unemployment rate is higher on average over the full 2000-2010 period than during the next two years. Having revised its estimate of the NAIRU downward to 5.2 percent, CBO now expects unemployment to equal that rate by 2010. The rise in the unemployment rate reflects below-potential growth in real GDP.

Inflation as measured by the CPI for urban consumers (the CPI-U) averages 2.5 percent between 2002 and 2010, and the GDP price index grows at an average rate of 1.7 percent. The difference between the projected rates of growth of the two inflation measures affects projections of the federal budget. Indexed budget programs and personal income tax brackets are tied to CPI inflation, and overall incomes are most directly influenced by changes in the GDP price index. The projected average growth of that index is 0.8 percentage points lower than that of the CPI.

CBO expects real interest rates to be lower on average during the 2002-2010 period than for the next two years. The real rates on three-month Treasury bills and 10-year Treasury notes fall to 2.3 percent and 3.2 percent, respectively, during the projection period. Combined with projected rates of CPI inflation, those real rates imply nominal rates of 4.8 percent for Treasury bills and 5.7 percent for Treasury notes.

Taxable Incomes

CBO's budget projections are closely connected to projections of economic activity and national income. However, different components of national income are taxed at different rates, and some are not taxed at all. Therefore, the distribution of income among its various components is an important part of CBO's economic projections. Wage and salary disbursements and corporate profits are particularly important because they are taxed at the highest effective rates. As a share of GDP, those two categories together have risen sharply, from 54.0 percent in 1994 to 57.6 per-

cent in 1999. In CBO's projections, however, their share declines steadily, reaching 55.8 percent in 2010.

The drop in the combined share of those income categories relative to GDP stems from a number of assumptions in the forecast. First, an increasing part of the capital income share of GDP is needed to replace worn-out equipment and structures. Firms have rapidly increased their capital stock during the past five years and will now have to allocate more of their earnings than before to maintaining that stock. That larger allocation will tend to reduce the part of the return on capital that shows up as taxable profits, even if the capital share as a whole remains constant.

Two other assumptions also contribute to the decline in taxable income's share of GDP: the increase in corporate debt and the increase in the share of labor compensation attributable to benefits. Firms have steadily increased their rate of borrowing over the past two years, and the combination of the increase in corporate debt and higher interest rates will tend to boost the costs of servicing that debt, which in turn reduces taxable profits.

An increase in benefits as a share of labor compensation is also likely to have a similar effect on the taxable share of GDP. The benefits that firms give to employees, primarily employer contributions to medical insurance premiums and pensions, are a form of compensation that is not subject to tax. Such benefits fell as a share of total compensation during the 1990s, but their share is likely to pick up over the next 10 years. CBO's projections assume a mild increase in the share of benefits in total compensation, which slightly reduces the taxable share of GDP.

Risks to the Outlook

Forecasts for the economy are always uncertain. CBO's forecast represents the midrange of possible outcomes. The forecast for the next several years may be too optimistic if renewed inflationary pressures force the Federal Reserve to aggressively tighten monetary policy, if equity prices suffer a sharp and sustained decline, or if the recent surge in the growth of

productivity proves to be short-lived. But because the baseline projection allows for the likelihood that an average recession will occur sometime in the next 10 years, changes in the cyclical path of the economy have minimal long-run effects on the economic and budget outlook. Alternatively, the forecast could be too pessimistic if the growth of productivity matches or outpaces that of the past four years. The implications of a few such scenarios for the budget are discussed in Chapter 5.

Downside Risks

The CBO forecast anticipates continued real economic growth over the next several years, but a substantial

slowdown or even a recession cannot be ruled out, particularly in 2001 or later. In February 2000, the current U.S. expansion will become the longest on record, surpassing that of the 1960s. Expansions do not die merely of old age, but they often generate the kinds of imbalances that make them difficult to sustain. Some analysts point to three imbalances that could have a significant effect on the U.S. economy—the large trade deficit, the very low personal saving rate, and what may be inflated stock prices.

To date there is no sign that recession is imminent, but some potential risks to the continuation of the current expansion are visible. They include the inflationary threat arising from extremely tight labor markets and the possibility of a substantial drop in the

Box 2-2.

Effect of the NIPA Revisions on CBO's Projections

The comprehensive revisions to the national income and product accounts (NIPAs) have raised the average annual growth of real (inflation-adjusted) gross domestic product by almost 0.4 percentage points since the early 1980s but have raised growth of nominal GDP by less than 0.2 percentage points. The revisions have had little effect on the growth of national income and the NIPA income categories—wage and salary disbursements and corporate (book) profits—that are important for projecting revenues (see Box 2-1 and the table below).

Effect of NIPA Revisions on Average Growth Rates of Various Aggregates for Two Historical Periods (In percentage points)

	Full Period of NIPA Revision (1959-1998)	Period Used for TFP Trend in Growth Model (1981-1998)
Real GDP	0.21	0.39
Nominal GDP	0.08	0.15
GDP Price Index	-0.14	-0.25
National Income	0.03	0.05
Wages and Salaries Plus Book Profits	0.05	0.09

Because the Congressional Budget Office (CBO) had anticipated much of the effect of the revisions in its previous estimates of potential GDP, the revisions had only a small effect on CBO's medium-term (10-year) projections of real GDP growth. Their effects on CBO's projections of nominal GDP growth and the NIPA counterparts to the federal budget's income and profits tax bases were even smaller.

Effect on Projections of Real GDP

The revisions primarily affected the projections of real GDP by changing the estimate for the growth rate of total factor productivity (TFP) for the 1981-1998 period and, to a much lesser extent, by changing the growth rate of the capital stock. CBO uses a growth model in which estimates of potential real GDP in the medium term are based on the growth of hours worked, the contribution of capital, and the total factor productivity of those two inputs. The revisions did not affect the projections of hours worked, and they had a small effect on the pace of capital accumulation. However, they increased the trend growth of TFP enough to raise the projection of potential real GDP by nearly 0.2 percentage points. The trend did not increase by the full revision of real GDP growth—0.4 percentage points—because half of that in-

stock market. With the unemployment rate well below the NAIRU and with CPI inflation having already received a boost from higher energy prices, wage growth could accelerate sharply. In addition, employers face the prospect of higher medical insurance premiums for their workers and retirees in 2000. More rapid growth in compensation does not necessarily have to translate into higher price inflation, but it could, especially if productivity growth slows. Rebounding economies in Asia and Europe may add to the inflation risks because the easing of excess capacity in the global economy is likely to put upward pressure on the prices of imported commodities and manufactured goods, with ripple effects on prices of domestically produced goods that compete with imports.

To head off building inflationary pressures, the Federal Reserve may be forced to boost the federal funds rate much more than the increase of 75 basis points it made during the second half of 1999 and the further increase of 50 basis points that CBO has incorporated in its forecast. With few exceptions, when the Federal Reserve has raised rates by 300 or more basis points, a recession has followed. The effects of a recession are typically first felt in residential construction and business investment but soon flow into consumer spending as real income stops growing. Moreover, that much tightening (or even expectations that it will be necessary) could adversely affect stock prices and therefore dampen consumer spending. Even a more modest tightening, on the order of 200 basis points (including the tightening that has already

Box 2-2. Continued

crease stemmed from a change in price measures that CBO had already incorporated in previous estimates of potential GDP.

In fact, the ultimate effect of the revisions was further reduced because the new data also allowed CBO to reassess its estimates of the effects of changes in price measures. Last summer, CBO assumed that such changes added 0.4 percentage points to the growth in potential GDP from 1999 to 2009. According to the new data, however, that figure should have been only 0.3 percentage points. The net effect of the revisions on CBO's projection for real growth is therefore about 0.1 percentage point.

Effect on National Income and the NIPA Tax Bases

In contrast to their effect on real GDP, the revisions had little effect on the historical rates of growth of national income and the NIPA counterparts to the federal budget's income and profits tax bases. In general, nominal values were less affected by the revisions than were real measures because a major aspect of the revisions was the change in price measures. But national income was affected even less than other nominal measures, such as nominal GDP.

Growth of nominal GDP was revised upward relative to that of national income because the growth rates of categories on the income side that are included in GDP but not in national income were revised upward. Those categories, which include consumption of fixed capital (depreciation) and business transfer payments, were both revised upward significantly. Revisions to subsidies minus the current surplus of government enterprises and the statistical discrepancy (the difference between the accounts on the income side and those on the product side) also explain why the revision did not affect the growth of national income as much as it did the growth of nominal GDP.

The revisions therefore had little direct effect on the projections of the growth of wage and salary disbursements and book profits. CBO's current projections for the growth of those NIPA tax bases are slightly higher than its July projections, but not directly because of the NIPA revisions. The growth rates of the tax bases are higher primarily because of the changes CBO has made to the projections of real GDP, which in turn were only partially attributable to the revisions.

occurred), could generate at least a sharper slowdown than the one in CBO's baseline forecast.

A substantial correction in the stock market could either exacerbate the above recession scenario or independently trigger a recession. A number of observers believe that equity prices are higher than can be justified by corporate earnings, perhaps by as much as 25 percent to 30 percent. If they are right and equity prices decline, a correction of that magnitude would reduce wealth by about \$3 trillion, which in turn could directly lower the growth of consumer spending by more than a percentage point over one to two years. A collapse of the stock market could also adversely affect business investment (because of financing difficulties and lost confidence) and the housing market. In addition, the effects could spread globally. However, damage would be limited if the Federal Reserve responded by easing monetary policy quickly, as it did following the 1987 crash.

Upside Risks

Alternatively, CBO's forecast might be too pessimistic about growth, inflation, or both. There need not be any slowdown in the next few years if productivity growth accelerates further or the labor force grows

more than expected. In the case of rapid productivity growth, the faster growth in compensation resulting from tight labor markets would not lead to higher inflation, but it would boost real income, perpetuating the boom in consumer spending and the housing market. Under those circumstances, the Federal Reserve would not need to try to slow the economy by hiking short-term interest rates. And continued acceleration of productivity growth might justify further increases in stock prices and continued high levels of investment by foreigners.

More rapid growth in the labor force would relax the constraints on output imposed by a tight labor market and would limit the rate of growth of compensation. One possible source of faster-than-anticipated growth of the labor force is an increase in the level of immigration. CBO's projections assume that legal and illegal immigration averages nearly 900,000 a year between 2000 and 2010. Although not all of those immigrants would enter the labor force, immigration represents a significant component of the expected annual average increase in the labor force of just over 1.6 million. Consequently, policy changes allowing for higher levels of legal immigration would boost the growth of the labor force and could thereby improve the economic and budget outlook.

The Revenue Outlook

The Congressional Budget Office estimates that total federal revenues will exceed \$1.9 trillion in fiscal year 2000 if current policies remain unchanged, marking the eighth consecutive year in which the growth of revenues has outstripped the growth of the nation's gross domestic product (see Figure 3-1). Revenues are expected to grow more slowly than GDP through 2004 and then at about the same rate as GDP through 2010. In that year, revenues are projected to be \$2.9 trillion, or about 19.8 percent of GDP.

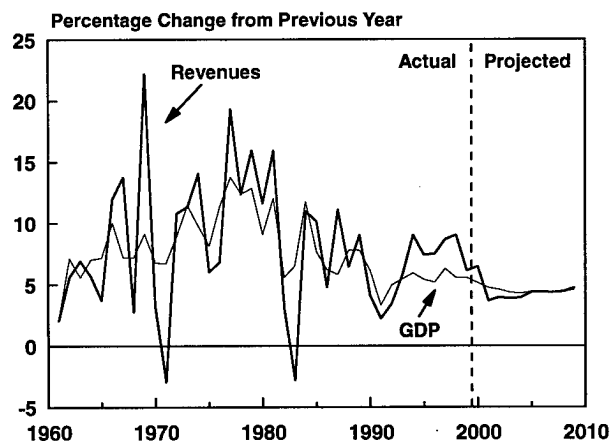
The current revenue outlook is more than \$600 billion higher through 2009 than CBO projected last July (see Table 3-1). About \$500 billion of that increase stems from changes in CBO's economic forecast, primarily from higher projected levels of wage and salary income, which boost receipts from individual income and social insurance taxes. The net effect of recently enacted legislation—the Ticket to Work and Work Incentives Improvement Act of 1999 (Public Law 106-170) and the Consolidated Appropriations Act (Public Law 106-113)—reduced projected revenues by about \$18 billion over 10 years. The remainder of the increase since July results from a number of adjustments in the technical assumptions that determine how much tax is generated by the tax base. The technical revisions vary from year to year, largely in the \$10 billion to \$20 billion range, and total about \$140 billion over 10 years. They represent changes to receipts from capital gains realizations, the Universal Service Fund, and numerous other sources of taxation.

As a percentage of GDP, however, all revenue figures are lower than in July, despite the upward revision

to revenue projections. The percentages are lower largely because of accounting revisions to GDP in the national income and product accounts that the Bureau of Economic Analysis published in September 1999. In general, the pattern of the revenue-to-GDP ratios throughout the projection period is very similar to that projected in July.

CBO expects the growth of receipts to slow from the rapid pace of the past few years. From 1994 to 1998, revenues rose at an average annual rate of 8.3 percent, much faster than GDP. Consequently, revenues as a share of GDP rose from 18.1 percent in 1994 to 19.9 percent in 1998. Although revenue

Figure 3-1.
Annual Growth of Federal Revenues and GDP
(By fiscal year)



SOURCE: Congressional Budget Office.

growth slowed to 6.1 percent in 1999, it still exceeded GDP growth and boosted the ratio of receipts to GDP to a postwar high of 20 percent (see Figure 3-2).

In CBO's forecast, receipts grow slightly faster in 2000 than in 1999. At 6.4 percent, receipts outpace growth of GDP. That rate pushes the ratio of receipts to GDP to 20.3 percent, which is expected to become the postwar peak. From 2001 to 2004, receipts are

projected to grow by roughly 4 percent each year, rising to about 4.5 percent from 2005 to 2010. Although output will grow faster than receipts on average during the next decade, the ratio of receipts to GDP will stay close to its peak, remaining at 19.8 percent in the second half of the projection period.

Individual income tax receipts, bolstered primarily by higher realizations of capital gains and increases

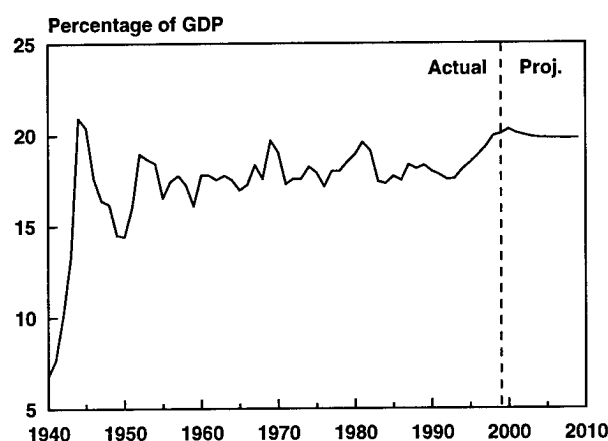
Table 3-1.
Changes in CBO Projections of Revenues Since July 1999 (By fiscal year, in billions of dollars)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Total, 2000- 2009
July Baseline Revenues	1,905	1,970	2,045	2,116	2,198	2,296	2,396	2,501	2,609	2,725	n.a.
Legislative Changes											
Individual Income	*	*	-3	*	*	*	*	*	*	1	-1
Corporate Income	*	-2	-5	-2	-2	-2	-1	-1	-1	-1	-16
Federal Reserve	4	-4	*	*	*	*	*	*	*	*	*
Other	-1	*	*	*	*	*	*	*	*	*	*
Subtotal	3	-6	-8	-2	-2	-1	-1	*	*	*	-18
Economic Changes											
Individual Income	11	24	35	42	44	46	48	50	52	53	404
Corporate Income	6	4	-3	-9	-12	-14	-16	-16	-15	-13	-88
Social Insurance	3	9	14	14	15	15	16	16	17	18	136
Other	2	5	7	7	7	6	6	6	6	6	58
Subtotal	23	41	52	54	53	53	54	56	60	65	510
Technical Changes											
Individual Income	3	4	3	2	3	3	3	4	6	7	38
Corporate Income	7	6	7	6	6	6	6	6	6	6	60
Social Insurance	5	4	5	5	6	7	7	8	8	11	65
Universal Service Fund	-2	-3	-8	-6	-2	-2	-2	-2	-2	-2	-29
Other	1	1	1	1	1	*	1	1	*	*	7
Subtotal	14	12	8	9	13	14	15	16	18	22	141
Total Changes											
All Sources	40	46	51	60	64	66	69	71	77	88	634
January Baseline Revenues	1,945	2,016	2,096	2,177	2,263	2,361	2,465	2,572	2,686	2,813	n.a.

SOURCE: Congressional Budget Office.

NOTES: n.a. = not applicable; * = less than \$500 million.

Figure 3-2.
Total Revenues as a Share of GDP
(By fiscal year)



SOURCE: Congressional Budget Office.

in the effective tax rate, have fueled the rapid growth of revenues over the past few years and are an important contributor to the slower growth of receipts projected for the next few years. The higher realizations of capital gains stemmed largely from the sharp rise in stock prices. Increases in the effective tax rate were partly the result of the rapid rise in income among high-income taxpayers, who are taxed at higher marginal rates. Neither of those two sources of rapid growth in receipts is expected to persist indefinitely, and revenue growth is projected to slow as they play smaller roles in boosting receipts.

Besides individual income tax receipts, federal revenues consist of receipts from corporate income taxes, social insurance taxes, excise taxes, estate and gift taxes, customs duties, and miscellaneous receipts. Individual income taxes produce nearly half of total revenues and almost 10 percent of GDP (see Table 3-2 and Figure 3-3). Corporate income taxes contribute about 10 percent of revenues and represent approximately 2 percent of GDP. Social insurance taxes (including Social Security taxes, which are off-budget) are the second largest source of revenues, equaling about a third of total receipts and about 7 percent of GDP. The other taxes and miscellaneous receipts, including profits from the Federal Reserve System, make up the balance.

Although the relative importance of social insurance taxes has increased since 1960, largely because

of the taxes for the Medicare program and the increases in Social Security taxes, those taxes have changed little as a share of GDP in the past decade. The share of individual income taxes, which had fluctuated between 7 percent and 9.5 percent since the 1950s, has only recently approached 10 percent. Receipts from corporate income taxes and excise taxes have diminished as a share of GDP since the 1950s.

Small variations in the relative roles of the different categories of receipts continue throughout the projection period. Individual income taxes as a share of GDP first fall and then rise. The corporate receipts share falls steadily as corporate profits recede further from their unusually high levels of the late 1990s. Lower unemployment insurance receipts cause the share of social insurance taxes to slip slightly. The share of excise taxes falls because many of them are levied per unit or transaction rather than as a percentage of value.

The pattern of individual income tax receipts as a share of GDP represents the effects of movements in two different directions. That share tends to increase over time because higher nominal income raises the number of taxpayers affected by the alternative minimum tax (AMT), and growth in real (inflation-adjusted) income under the progressive tax rate structure subjects more taxpayers to higher marginal tax rates. The share of individual income tax receipts tends to fall, however, as capital gains realizations slowly resume their historical relation to output. For the first half of the projection period, the effect from capital gains tends to dominate, lowering individual income tax receipts as a share of GDP. Thereafter, their share tends to rise. That tendency is strong enough to just offset the downward effects of corporate, excise, and social insurance receipts, so that total receipts as a share of GDP remain steady in the second half of the projection period.

Individual Income Taxes

Individual income taxes account for most of the recent rise in revenues as a percentage of GDP. From 1993 to 1998, those receipts averaged growth of more than 10 percent a year. In fiscal year 1999, partly because

Table 3-2.
CBO Projections of Revenues (By fiscal year)

	Actual 1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
In Billions of Dollars												
Individual Income	879	945	986	1,026	1,068	1,112	1,162	1,217	1,275	1,339	1,407	1,480
Corporate Income	185	189	189	187	190	194	200	208	216	225	233	242
Social Insurance	612	653	684	714	742	770	808	842	878	913	954	998
Excise	70	68	71	73	75	77	79	81	84	86	89	91
Estate and Gift	28	30	32	33	35	36	37	38	40	42	45	48
Customs Duties	18	19	20	22	23	25	26	27	28	29	30	31
Miscellaneous	35	40	36	41	44	49	50	52	51	53	55	57
Total	1,827	1,945	2,016	2,096	2,177	2,263	2,361	2,465	2,572	2,686	2,813	2,946
On-budget	1,383	1,465	1,515	1,571	1,630	1,693	1,764	1,843	1,923	2,010	2,106	2,208
Off-budget ^a	444	480	502	525	547	570	597	623	649	676	707	738
As a Percentage of GDP												
Individual Income	9.6	9.9	9.8	9.8	9.7	9.7	9.7	9.8	9.8	9.9	9.9	10.0
Corporate Income	2.0	2.0	1.9	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.6
Social Insurance	6.7	6.8	6.8	6.8	6.8	6.7	6.8	6.8	6.8	6.7	6.7	6.7
Excise	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.6
Estate and Gift	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Customs Duties	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Miscellaneous	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Total	20.0	20.3	20.1	20.0	19.9	19.8	19.8	19.8	19.8	19.8	19.8	19.8
On-budget	15.2	15.3	15.1	15.0	14.9	14.8	14.8	14.8	14.8	14.8	14.8	14.9
Off-budget ^a	4.9	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0

SOURCE: Congressional Budget Office.

a. Social Security.

of the tax cuts enacted in the Taxpayer Relief Act of 1997, they slowed to their lowest rate of increase since 1992. Nonetheless, they grew faster than GDP, reaching their highest share of GDP in the postwar period in 1999. Their share is expected to peak in 2000 and then to slowly recede as some of the factors that caused its rise moderate. But by 2005, the factors tending to boost the share of individual tax receipts begin to dominate and cause the ratio to rise through 2010.

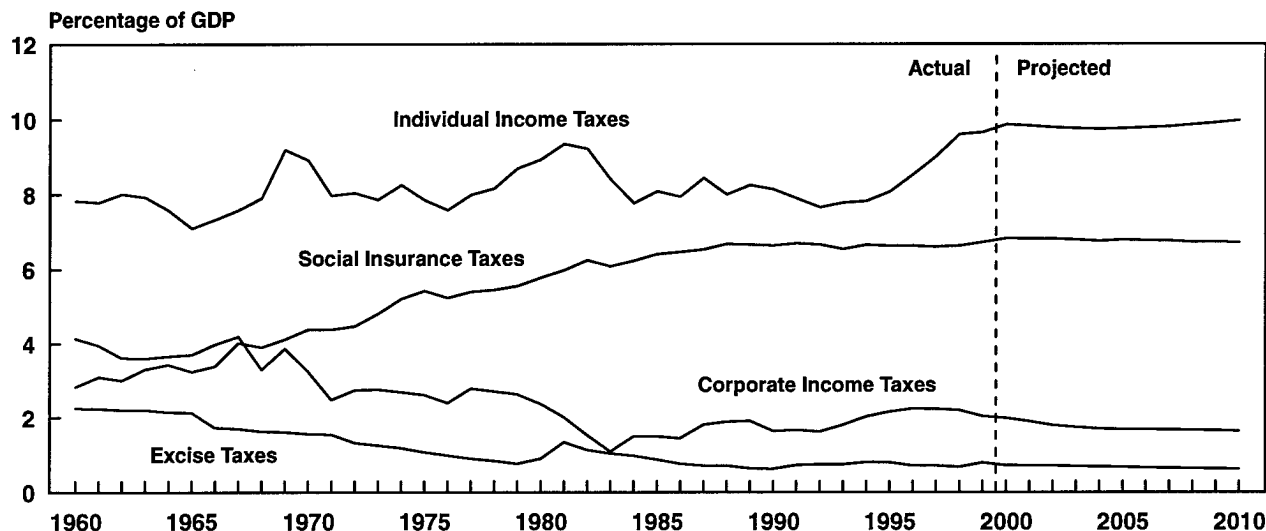
Sources of Recent Growth in Individual Income Taxes

Historically, individual income taxes have tended to grow only slightly faster than GDP, with just a few

exceptions. In 1969, for example, a surtax caused income tax receipts to increase significantly faster than GDP; and before the tax code was indexed, inflation pushed the growth of income tax revenues well above that of the economy by effectively decreasing the levels of real income at which higher tax rates applied. But those phenomena were largely temporary and were followed by years in which revenue growth fell below that of GDP.

The Omnibus Budget Reconciliation Act of 1993 raised rates for higher-income taxpayers, which largely explains why individual income tax receipts climbed faster than GDP in 1994. But from 1995 to 1999, the annual growth of those receipts surpassed that of the economy for reasons unrelated to new tax

Figure 3-3.
Revenues, by Source, as a Share of GDP (By fiscal year)



SOURCE: Congressional Budget Office.

legislation. Indeed, receipts in 1998 and 1999 increased as a percentage of GDP despite new tax breaks for children and education.

Analysis of data on individual income tax liabilities indicates that the surge in those liabilities from tax years 1994 to 1998 (1998 data are preliminary) can be traced to four sources. (The tax year is the year in which the tax liability is incurred.) The percentage contribution of each of those sources, which are described below, is calculated using the amount of tax liability that would have accrued if the child and education tax credits that became effective in tax year 1998 had not been enacted in 1997.

An important source of the surge in individual income tax liability as a percentage of GDP is the rapid growth of components of GDP that are taxable to individuals. (For more information on the relationship between tax liability, taxable income, and GDP, see Box 3-1.) Taxable personal income—the sum of the NIPA measures of wages, interest, dividends, proprietors' income, and rental income—grew faster than GDP from 1994 to 1998. The resulting rise in the proportion of taxable personal income in GDP raised the tax base for the individual income tax and accounted for nearly a fifth of the growth of tax liabilities

in excess of GDP growth over that period (see Table 3-3).

The next two sources are found among the components of adjusted gross income (AGI)—the actual income base of the individual income tax—which has been rising more rapidly than taxable personal income. Capital gains realizations, which are not included in either GDP or taxable personal income, account for a large part of the growth in AGI. Between 1994 and 1998, gains realizations nearly tripled, with most of that increase occurring before the cut in capital gains tax rates in 1997. Although taxes on gains have accounted for only about 7 percent to 11 percent of individual income tax liabilities in recent years (and much less than that previously), they accounted for nearly a third of the growth of those liabilities relative to GDP from 1994 to 1998.

Other components of AGI that are not part of taxable personal income or GDP have also risen more rapidly than both of those measures. Retirement income in the form of distributions from 401(k) plans and individual retirement accounts and from taxable Social Security benefits figure prominently in this category. The growth of retirement and nonretirement components together accounted for nearly 10 percent

Box 3-1. Tax Bases and Tax Liability

The ratio of tax receipts to gross domestic product varies for reasons other than changes in tax law. In particular, the bases on which taxes are imposed differ from GDP, and their growth is sometimes faster or slower than that of GDP. Although the bases for taxes on individual and corporate income and social insurance are similar to gross domestic product, they differ from GDP in a number of important respects.

Individual Income Tax Base

Taxable personal income is the first approximation of the individual income tax base. It comprises dividends, interest, wages and salaries, rent, and proprietors' income. It does not include depreciation, indirect business taxes, fringe benefits, or retained corporate profits.

Not all of that income is taxed, however, because it accrues to tax-exempt entities such as hospitals, schools, cultural institutions, and foundations; it is earned in a form that is tax-exempt, such as income from state and local bonds; or it is tax-deferred, such as income from retirement accounts. Also, personal interest and rental income contain large components of imputed income—income that is not earned in a cash or near-cash transaction. Imputed income, which includes personal earnings within pension funds and life insurance policies and from owner-occupied housing, is not taxable. Consequently, a large amount of interest, dividend, and rental income is excluded from the taxable base of the income tax.

Taxpayers make further adjustments, both additions and subtractions, to taxable personal income. *Capital gains realizations*—the increase in the value of assets between the time they are purchased and sold—and part of Social Security benefits are added to taxable personal income. Contributions from income to tax-deductible individual retirement accounts and 401(k) programs are excluded, but distributions to retirees from those programs are included. The result of these and other additions and subtractions is called *adjusted gross income* (AGI).

Exemptions and deductions are subtracted from AGI to yield taxable income, which is then subject to progressive tax rates (that is, rates that rise as income rises). The resulting tax may then be subject to further adjustment in the form of *credits*, such as the child credit for taxpayers with children under 17, that reduce the taxpayers' *tax liability*. An important wrinkle in calculating individual tax

liability is the *alternative minimum tax* (AMT), which requires some taxpayers to separately calculate their taxes under a more limited set of exemptions, deductions, and credits. Taxpayers pay the higher of the AMT or the ordinary tax. The ratio of tax liability to AGI is called the *effective tax rate on AGI*.

Corporate Income Tax Base

Corporate income in GDP is calculated on the basis of *economic depreciation*—the dollar value of productive capital assets that have been used up. For tax purposes, however, corporations calculate *book profits*. Those profits are calculated on the basis of *tax depreciation*, which is typically more generous than economic depreciation; that is, the capital is assumed to be used up faster than it actually is, allowing firms a greater reduction in their reported (and therefore taxable) profits.

The measure of total book profits must be adjusted to remove profits of the Federal Reserve System, which are counted with corporate profits in the national accounts but appear as federal revenues in the miscellaneous receipts category in the budget. Book profits are also adjusted to allow for the taxation of U.S. income earned by foreign corporations and the deferral of most foreign income earned by U.S. corporations. Those and other, smaller adjustments yield *taxable income* for corporations. The ratio of corporate taxes to taxable income is the *average tax rate*.

Social Insurance Tax Base

Social insurance taxes, the other big source of receipts, have wages and salaries as their base. Those receipts largely fund Social Security and Hospital Insurance (Part A of Medicare). Social Security taxes are imposed as a percentage of pay up to a *taxable maximum* that is indexed for wage growth in the economy. Hospital Insurance taxes are not subject to a taxable maximum.

Despite the many adjustments that must be made to calculate the true tax bases, a convenient way to approximate them is to add wages and salaries and corporate book profits (see Chapter 2, page 45). Those items pick up much of the base of the individual income, corporate income, and payroll taxes and therefore constitute the bulk of taxed income.

of the increase in liability relative to GDP growth from 1994 to 1998.

The most significant source of the growth of income taxes is the increase in the effective tax rate. In tax years 1995 to 1998, increases in the effective rate (on income other than capital gains) accounted for roughly 40 percent of the growth of liabilities in excess of GDP. The effective tax rate on overall AGI rose from 1992 through 1997 (see Figure 3-4). Because it is the ratio of total taxes paid to total AGI, the effective tax rate can be affected by changes in both statutory rates and real incomes. Statutory increases in marginal tax rates for higher-income taxpayers raised the effective rate in tax years 1993 and 1994, and growth in real incomes has fueled the rise since then. In 1998, the effective rate fell because of tax cuts enacted in 1997. If not for those cuts, the effective tax rate would have risen by more than it did in 1997.

Increases in real income for taxpayers generally placed more income into higher tax brackets. That phenomenon alone accounted for slightly more than half of the increase in the ratio of income tax liability to GDP that resulted from the rise in the effective tax rate. Nearly as important, income growth concentrated at the top of the income distribution raised the effective tax rate by increasing the proportion of income taxed at the highest rates. Even though no income group was subjected to higher statutory tax rates, a larger share of income accrued to those groups with the highest tax rates. The share of AGI going to taxpayers with AGI above \$200,000 (in 1998 dollars) rose from 14.5 percent in tax year 1993 to 21.6 percent in tax year 1998 (see Table 3-4). Two factors accounted for that increase: more taxpayers had AGI above \$200,000, and those taxpayers experienced higher-than-average growth in income. Their share of tax liability went from 29.8 percent to 39.8 percent

Table 3-3.
Sources of Growth in Individual Income Tax Liabilities in Excess of GDP Growth,
Tax Years 1994-1998 (As a percentage of total growth)

Sources of Growth	1994- 1995	1995- 1996	1996- 1997	1997- 1998 ^a	1994- 1998 ^a
Taxable Personal Income (TPI) Grows Faster Than GDP	21	12	14	26	18
Adjusted Gross Income (AGI) Grows Faster than TPI					
Capital gains taxes grow faster than TPI	21	52	29	16	31
Other AGI grows faster than TPI	14	4	12	9	9
Changes in the Effective Tax Rate on AGI					
Effect of real growth on effective rate	21	17	25	27	22
Other changes in effective rate	<u>23</u>	<u>15</u>	<u>21</u>	<u>22</u>	<u>20</u>
Total	100	100	100	100	100

Memorandum:

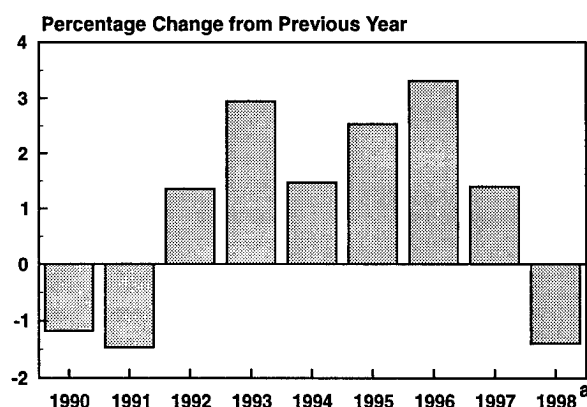
Growth of Individual Income Tax Liabilities in Excess
of GDP Growth (Billions of dollars)

27	39	36	33	134
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SOURCE: Congressional Budget Office using data from the Internal Revenue Service's Statistics of Income, 1994-1997, and IRS tabulations of 1998 returns processed through November 1999.

a. The estimate for 1998 tax liability does not include the child and education credits enacted in the Taxpayer Relief Act of 1997.

Figure 3-4.
Recent Growth in the Effective Tax Rate
on Individual Income (By calendar year)



SOURCE: Congressional Budget Office.

a. Data are based on tax returns processed through November 1999.

during the same period, a substantially larger increase than could be attributed to the growth in income overall. The growth in income of taxpayers with more than \$1 million in AGI was even more dramatic, and their share of taxes rose even though their effective tax rate did not.

Although the proximate causes of the surge in individual income tax receipts can be identified by examining tax filings, the underlying causes are more difficult to discern. In particular, it is difficult to isolate the role of the extraordinary rise in the stock market. The rising prices of financial assets increase the accrual of capital gains, which ultimately lead to taxable realizations. Those rising prices also produce higher balances in retirement accounts, which become taxable when taxpayers choose (or in some cases are required) to withdraw them. Moreover, the higher retirement balances may induce taxpayers to lower their tax-exempt contributions in light of their growing retirement wealth, raising their taxable income. The market has also generated high partnership income for financial firms. In addition, the rising prices of assets produce taxable income from stock options and bonuses; firms can deduct those items, thus generating nearly offsetting reductions in corporate income tax receipts. Although bonuses and partnership income do not dominate individual income tax receipts, they are concentrated among high-income taxpayers, where

they may have a disproportionate effect on the growth of those receipts.

Revenues in 1999

The difference between one-year-ahead projections and actual tax collections is an important factor in revising estimates of future taxes. Real-time collections can tell forecasters that projections are off, but they do not reveal much information about why. Preliminary data on tax returns with enough detail to help identify sources of projection errors are not available until more than a year after collections data are known. Consequently, when actual receipts substantially exceed projections, discerning the implications of the collections information for future revenues can be difficult. Incorporating that information into the revenue forecast requires a certain amount of conjecture about the underlying reasons that collections diverged from the forecast.

After three years in which revenues have exceeded one-year-ahead projections by substantial amounts, CBO's January 1999 revenue forecast was substantially on target. At that time, CBO estimated that 1999 revenues would total \$1,815 billion. End-of-year figures showed revenues of \$1,827 billion. The underestimate for individual income taxes was slightly larger, since it was partly offset by an overestimate of corporate income taxes (see Table 3-5). Most of the \$16 billion underestimate stemmed from higher-than-expected withholding. As the behavior of nonwithheld taxes and refunds implies, 1999 was not characterized by an "April surprise" of unexpected revenues. As a result, the projections of revenues in CBO's current baseline rely less on conjecture about the implications of recent nonwithheld tax payments for future receipts.

Capital gains realizations, which are often considered relevant to the accuracy of forecasts, are notoriously difficult to predict. They constitute a relatively small percentage of individual tax receipts, however, and errors in forecasting them are unlikely to play a large role in errors in revenue forecasts. In any case, for the second year in a row, CBO's estimate of capital gains realizations was relatively close to the preliminary estimates of actual realizations. The January

1999 estimate of realizations in tax year 1998, which are important for fiscal year 1999 receipts because much of the resulting tax is paid with the subsequent filing of tax returns, was \$418 billion compared with actual realizations of about \$440 billion.

Expected Pattern of Future Receipts

The growth of individual income tax receipts, which in 1999 slowed to 6.1 percent from the double-digit rates of the previous three years, is projected to pick up slightly in 2000, to 7.4 percent (see Table 3-6). Growth then slows to a little more than 4 percent a year from 2001 through 2004 and then rises gradually to more than 5 percent after 2008. The projected cooling of the economy is partly responsible for the slower growth: GDP growth in the forecast slows from 5.5 percent in 1999 to less than 4.5 percent by 2003.

Other, tax-specific factors also affect the path of individual tax receipts. The tax credits for children and education enacted in the Taxpayer Relief Act of 1997, for example, contribute to the expected rebound

in growth of receipts in 2000. Those credits became effective in tax year 1998, and most were claimed in early 1999 through tax refunds, thus reducing revenue growth in fiscal year 1999. Although the credit for children increased from \$400 to \$500 in tax year 1999, the additional revenue loss in 2000 will slow the pace of revenue growth only slightly.

The path of individual tax receipts over the next 10 years depends largely on the four sources, described above, that explain the rapid growth of receipts during the 1994-1998 period: taxable personal income relative to GDP, capital gains realizations, taxable retirement income and other components of AGI not in taxable personal income, and effective tax rates. Together, those sources raise individual tax receipts as a share of GDP over the projection period. As a result, those receipts are expected to be about \$60 billion higher in 2010 than they would be if their share of GDP remained at its 1999 level.

The relation between taxable personal income and GDP is difficult to project. Nonetheless, over longer periods, taxable personal income cannot

Table 3-4.
Percentage of Returns, Adjusted Gross Income, and Tax Liabilities for High-Income Taxpayers,
Tax Years 1993-1998

AGI (1998 dollars)	1993	1994	1995	1996	1997	1998 ^a
Percentage of Returns						
200,000 and above	1.1	1.1	1.2	1.4	1.5	1.6
500,000 and above	0.2	0.2	0.3	0.3	0.3	0.4
1 million and above	0.1	0.1	0.1	0.1	0.1	0.1
Percentage of AGI						
200,000 and above	14.5	14.8	16.0	18.2	20.3	21.6
500,000 and above	7.7	7.7	8.7	10.3	12.2	13.1
1 million and above	4.9	4.9	5.6	7.1	8.6	9.3
Percentage of Tax Liabilities						
200,000 and above	29.8	30.1	32.1	35.4	37.7	39.8
500,000 and above	17.5	17.2	19.1	21.8	24.0	25.6
1 million and above	11.4	11.2	12.6	15.1	16.9	18.3

SOURCE: Congressional Budget Office.

NOTE: AGI = adjusted gross income.

a. Data are based on tax returns processed through November 1999.

Table 3-5.
Actual Federal Revenues in Fiscal Year 1999,
by Source, Compared with CBO's January 1999
Projections (In billions of dollars)

Source	Actual 1999 Reve- nues	CBO's January 1999 Projec- tions	Differ- ence
Individual Income Taxes			
Withheld	694	674	20
Nonwithheld	308	311	-3
Refunds	-123	-122	-1
Subtotal	879	863	16
Corporate Income Taxes	185	193	-8
Social Insurance Taxes	612	610	1
Excise Taxes	70	69	1
Other Revenue Sources	81	79	2
Total	1,827	1,815	13

SOURCE: Congressional Budget Office.

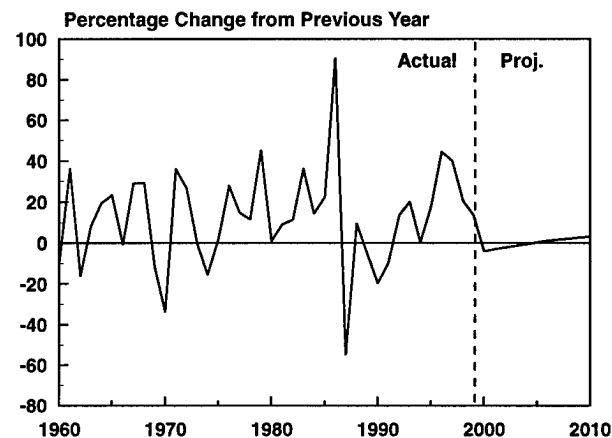
continually increase as a share of GDP. In CBO's baseline economic projection, taxable personal income grows slightly faster than GDP in 2000 and then begins to decrease as a share of GDP, which tends to slow the growth of receipts and reduce their share of GDP over time. Much of that decrease, however, is in the more lightly taxed interest and dividend components of income rather than in wages and salaries. Consequently, the behavior of taxable personal income overall does little to change the receipts-to-GDP ratio.

The components of AGI fare differently in the projections. Capital gains realizations gradually resume their historical relation with GDP (with due allowance given to the effect of lower capital gains tax rates on taxpayers' willingness to realize gains), slowing the growth of receipts and reducing their share of GDP (see Figure 3-5). As a result, receipts are \$75 billion lower in 2010 than they would be if they maintained a constant share of GDP.

Other components of AGI, especially retirement income, become more important, raising the growth of individual income tax receipts slightly and slowly increasing their share of GDP over time. The effect of those components adds \$60 billion to receipts in 2010 relative to what they would have been with a constant receipts-to-GDP ratio.

The effective tax rate continues to rise as a consequence of higher incomes. Because the AMT is not indexed for inflation, higher nominal incomes subject more taxpayers to the AMT. In addition, even though the regular income tax is indexed for inflation, real growth in incomes causes more people to be taxed at higher marginal rates because of the progressive rate structure of the income tax. Those two factors tend to boost the growth of receipts and cause the receipts-to-GDP ratio to rise over time. The effects of the AMT and real growth raise receipts in 2010 by about \$25 billion and \$50 billion, respectively, relative to what they would be if the receipts-to-GDP ratio remained constant. Although the rapid income growth among the highest-income taxpayers is not expected to cause further increases in the effective tax rate, those taxpayers are expected to maintain the shares of income they gained during the recent economic boom. As a result, the growth of receipts slows, and the receipts-to-GDP ratio levels off.

Figure 3-5.
Annual Growth of Taxable Capital
Gains Realizations (By calendar year)



SOURCE: Congressional Budget Office.

Table 3-6.
CBO Projections of Individual Income Tax Receipts and Tax Base (By fiscal year)

	Actual 1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Individual Income Tax Receipts												
In billions of dollars	879	945	986	1,026	1,068	1,112	1,162	1,217	1,275	1,339	1,407	1,480
As a percentage of GDP	9.6	9.9	9.8	9.8	9.7	9.7	9.7	9.8	9.8	9.9	9.9	10.0
Annual growth rate	6.1	7.4	4.3	4.1	4.1	4.1	4.6	4.8	4.7	5.0	5.1	5.2
Taxable Personal Income												
In billions of dollars	6,471	6,842	7,147	7,436	7,720	8,013	8,329	8,662	9,009	9,371	9,756	10,161
As a percentage of GDP	71.0	71.4	71.2	70.8	70.5	70.2	69.9	69.6	69.3	69.0	68.7	68.4
Annual growth rate	6.5	5.7	4.5	4.0	3.8	3.8	3.9	4.0	4.0	4.0	4.1	4.2
Individual Receipts as a Percentage of Taxable Personal Income												
	13.6	13.8	13.8	13.8	13.8	13.9	14.0	14.1	14.2	14.3	14.4	14.6

SOURCE: Congressional Budget Office.

NOTE: The tax base in this table reflects income as measured by the national income and product accounts rather than as reported on tax returns.

Together, these factors cause the growth of individual receipts to slow and the receipts-to-GDP ratio to first decline and then rise again. Initially, the pattern of lower capital gains realizations relative to GDP and slower growth of taxable personal income dominates and causes the receipts-to-GDP ratio to fall. Slowly, however, the other effects, such as the growth of taxable retirement income and the higher effective tax rates resulting from real income growth, cause the ratio to rise.

Clearly, the future course of most of these factors is very uncertain. The implications of alternative paths of effective tax rates and economic growth for the budget surplus are discussed in Chapter 5.

the uncertainty stems from the fluctuation of corporate profits. Profits are essentially the residual income in an economy—what remains for the owners of firms after all of the other productive inputs have been compensated. As a result, profits tend to vary much more over time than do other sources of taxable income, making them difficult to project.

Uncertainty also arises from unexpected movements in the average tax rate (total corporate receipts as a percentage of total taxable profits). Those unexpected movements have been greatest following major changes in corporate tax law, such as occurred in 1986.¹ Over much of the period since then, the average tax rate has been relatively stable, with CBO's forecast error typically the result of profits that grew at rates different from those anticipated.

Corporate Income Taxes

Projections of corporate income tax receipts are always subject to a great deal of uncertainty, although their relatively small size dampens the effect of that uncertainty on projections of total revenues. Much of

1. See Congressional Budget Office, *The Shortfall in Corporate Tax Receipts Since the Tax Reform Act of 1986*, CBO Paper (May 1992).

From 1995 to 1998, corporate income tax receipts as a percentage of GDP reached levels not achieved since 1980. That performance was largely driven by very strong growth in corporate profits. In 1999, however, that strong growth began to slip. CBO expects that corporate profits will gradually decline as a share of GDP until they reach levels more like those experienced in the 1970s. However, profits as a share of GDP do not decline to the even lower levels of the 1980s, when profitability was severely impaired by rising debt burdens—a condition not expected to occur during the projection period.

A factor responsible for part of the slow growth of profits through 2002 is the projected behavior of book depreciation. Investment in assets with short depreciable lives for tax purposes has risen sharply in recent years and is expected to rise in 2000 and then slow. Thus, between 2000 and 2002, depreciation for tax purposes is also expected to grow rapidly. The

behavior of tax depreciation is the biggest reason that CBO's projections of book profits, which are close to the income measure on which taxes are collected, differ from the commonly used corporate economic profits that appear in the NIPAs as part of GDP.

CBO makes several adjustments to book profits to produce an even better approximation of the corporate tax base. That measure is called "taxable corporate profits." First, CBO's measure excludes corporate profits from foreign subsidiaries of U.S. firms. Taxes on those profits are largely deferred under the corporate income tax until the profits are repatriated to the U.S. parent corporation, and even then they typically are not taxed because of a credit for foreign taxes paid on that income. Second, CBO's measure excludes profits of S corporations, which are usually smaller firms that qualify for taxation as partnerships. As such, their profits are considered to flow through automatically to the shareholders and are taxed as in-

Table 3-7.
CBO Projections of Corporate Income Tax Receipts and Tax Base (By fiscal year)

	Actual 1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Corporate Income Tax Receipts												
In billions of dollars	185	189	189	187	190	194	200	208	216	225	233	242
As a percentage of GDP	2.0	2.0	1.9	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.6
Annual growth rate	-2.1	2.6	0	-1.2	1.6	1.8	3.3	4.0	4.0	3.9	3.8	3.7
Corporate Book Profits												
In billions of dollars	820	835	830	829	836	855	878	910	945	982	1,020	1,052
As a percentage of GDP	9.0	8.7	8.3	7.9	7.6	7.5	7.4	7.3	7.3	7.2	7.2	7.1
Annual growth rate	3.3	1.9	-0.6	-0.1	0.8	2.2	2.8	3.6	3.9	3.9	3.9	3.1
Taxable Corporate Profits^a												
In billions of dollars	665	683	680	681	687	703	723	750	780	811	843	870
As a percentage of GDP	7.3	7.1	6.8	6.5	6.3	6.2	6.1	6.0	6.0	6.0	5.9	5.9
Annual growth rate	3.6	2.8	-0.5	0.2	0.9	2.4	2.9	3.7	3.9	4.0	4.0	3.2
Corporate Receipts as a Percent- age of Taxable Profits	27.8	27.7	27.9	27.5	27.7	27.5	27.6	27.7	27.7	27.7	27.7	27.8

SOURCE: Congressional Budget Office.

NOTE: The tax base in this table reflects income as measured by the national income and product accounts rather than as reported on tax returns.

a. Taxable corporate profits are defined as book profits minus profits earned by the Federal Reserve System, transnational corporations, and S corporations and deductible payments of state and local corporate taxes. They include capital gains realized by corporations.

dividual rather than corporate income. Other adjustments include subtracting corporate income taxes paid to state and local governments and the profits of the Federal Reserve System and adding capital gains realized by corporations.

Book and taxable profits follow a very similar pattern over the projection period, growing at average annual rates of 2.3 percent and 2.5 percent, respectively (see Table 3-7). Differences occur in some years, but they are minor. In 2000, for example, capital gains boost the growth of taxable profits by about a percentage point above that of book profits.

The average tax rate varies only slightly, between 27.5 percent and 27.9 percent, over the projection period. Those rates are substantially lower than the ones in previous reports—an artifact of last September's GDP revisions, which changed how the NIPAs account for business software (see Box 2-1 on page 38). The new NIPA measures now count software as a depreciable asset rather than as an intermediate input in the production process. Costs of production are therefore lower in the statistical measure of corporate profits, which boosts corporate profits.

Since CBO's previous estimates of taxable profits were derived from the old measure of book profits and did not account for software as a depreciable asset, taxable profits are now also higher, thus lowering the measure of the average tax rate (since tax receipts are not affected by the GDP revisions).

Corporate income tax receipts rise very modestly in 2000, remain about the same in 2001, and then decline in 2002. As a percentage of GDP, they fall from 2.0 percent in 1999 and 2000 to 1.8 percent in 2002. Corporate receipts begin to grow again in 2003 and continue to grow through 2010. But as a share of GDP, they continue to fall, reaching 1.6 percent of GDP by the end of the projection period.

Social Insurance Taxes

Social insurance taxes follow roughly the same path as wages and salaries (see Table 3-8). The largest components are Social Security (Old-Age, Survivors, and Disability Insurance, or OASDI) and Medicare (Hos-

Table 3-8.
CBO Projections of Social Insurance Tax Receipts and Tax Base (By fiscal year)

	Actual 1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Social Insurance Tax Receipts												
In billions of dollars	612	653	684	714	742	770	808	842	878	913	954	998
As a percentage of GDP	6.7	6.8	6.8	6.8	6.8	6.7	6.8	6.8	6.8	6.7	6.7	6.7
Annual growth rate	7.0	6.8	4.6	4.5	3.9	3.8	4.9	4.3	4.3	4.0	4.5	4.5
Wages and Salaries												
In billions of dollars	4,403	4,675	4,902	5,127	5,352	5,581	5,826	6,084	6,353	6,633	6,932	7,247
As a percentage of GDP	48.3	48.8	48.8	48.8	48.9	48.9	48.9	48.9	48.8	48.8	48.8	48.8
Annual growth rate	7.1	6.2	4.9	4.6	4.4	4.3	4.4	4.4	4.4	4.4	4.5	4.5
Social Insurance Receipts as a Percentage of Wages and Salaries												
	13.9	14.0	13.9	13.9	13.9	13.8	13.9	13.8	13.8	13.8	13.8	13.8

SOURCE: Congressional Budget Office.

NOTE: The tax base in this table reflects income as measured by the national income and product accounts rather than as reported on tax returns.

pital Insurance, or HI) taxes (see Table 3-9). They are calculated as a percentage of covered wages, the former up to a taxable maximum that is indexed to wage growth over time. Consequently, OASDI and HI taxes tend to remain stable as a proportion of income as long as covered wages are a stable share of GDP and the distribution of income from wages remains relatively stable. That relative stability is reflected in CBO's projection of social insurance tax receipts for the next decade. Those receipts are projected to grow as a share of GDP between 1999 and 2000 and then to decline slowly back to the 1999 level.

Social Security taxes push up social insurance taxes as a share of wages in 2000. The maximum income that is subject to the OASDI tax increases as wages increase, but with a lag. That lag boosts the average tax rate when wage growth slows from one year to the next, as it did in 1999 and is forecast to do again in 2000. The increase in the taxable maximum for 2000 is based on the increase in average wages between 1997 and 1998—about 5 percent. The projected increase in average wages in 2000 is only 4 percent. Workers whose income is below the taxable maximum in 2000 will see their Social Security taxes grow on average at the same rate as wages, or 4 per-

cent. But workers whose wages are at or above the taxable maximum will have an increase in taxes of 5 percent. Social Security taxes thus increase faster than wages.

In 1999, the Treasury Department adjusted its tabulation of Social Security receipts to reflect previous misestimates, but such an adjustment is assumed to be unnecessary in 2000. When OASDI and HI taxes are withheld from paychecks and remitted to the Treasury, they are indistinguishable from the individual income tax withholding that is remitted at the same time. The social insurance portions of the payments are estimated and assigned to the respective trust funds on the basis of Treasury projections. As an accounting of the payments becomes available in the following years, the trust funds are adjusted to make up for any shortfall or excess in the estimates. As a result, lump-sum adjustments of receipts in the social insurance category (with an offsetting adjustment in individual income tax receipts) may occur in years other than those in which the payments were received and the liabilities incurred. In 1999, that adjustment significantly affected HI taxes. Because no similar adjustment is made in 2000, HI taxes fall slightly as a percentage of GDP in 2000 and remain about the same thereafter.

Table 3-9.
CBO Projections of Social Insurance Tax Receipts, by Category (By fiscal year, in billions of dollars)

	Actual 1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Social Security	444	480	502	525	547	570	597	623	649	676	707	738
Medicare	132	138	144	151	157	164	172	180	188	196	205	214
Unemployment Insurance	26	27	29	30	29	28	30	32	33	33	36	38
Railroad Retirement	4	4	4	4	4	5	5	5	5	5	5	5
Other Retirement	4	4	4	4	4	4	3	3	3	3	3	3
Total	612	653	684	714	742	770	808	842	878	913	954	998

SOURCE: Congressional Budget Office.

The slow decline in social insurance receipts as a fraction of wages after 2001 is driven by revenues associated with unemployment insurance and non-Social Security retirement programs. Unemployment tax receipts fall because the extended period of high employment in CBO's economic forecast reduces benefit outlays and permits states to lower their contributions. In addition, CBO projects that the federal government will begin making payments to states from the Federal Unemployment Tax Act trust fund in 2003, permitting states to lower their unemployment tax rates. (When the federal trust fund reaches its statutory cap, any additional revenues are transferred to the states.) Receipts from both the state and federal unemployment tax systems are included in federal unemployment tax receipts. Revenue from non-Social Security retirement programs falls over the decade when the surcharges imposed on federal workers' retirement contributions expire (in 2002) and workers under the old federal retirement system, which has higher contribution rates, retire.

Excise Taxes

Excise taxes are expected to continue their long-term decline as a percentage of GDP, falling from their

1999 share of 0.8 percent to 0.6 percent toward the end of the projection period. Most excise taxes—those representing about 80 percent of total excise revenues—are levied per unit of good or per transaction rather than as a percentage of value. Thus, although excise receipts grow with real output, they do not rise with inflation and therefore do not grow as fast as nominal GDP.

Nearly all excise taxes fall into five major categories: highway, airport, telephone, alcohol, and tobacco. Almost half of all excise tax receipts are for the Highway Trust Fund, primarily from gasoline and diesel taxes (see Table 3-10). Most airport and telephone taxes are levied on a percentage basis, so they grow faster than other excise taxes. A small hike in tobacco taxes enacted in 1997 increases the level of receipts in 2000 and again in 2002. However, the projections of tobacco tax receipts also reflect the drop-off in tobacco consumption that is expected to result from the higher tobacco prices caused by the tobacco industry's settlements with the states. The net effect is that tobacco receipts are stable after 2003.

The projected level of excise taxes is lower in 2000 than in 1999. Excise tax receipts for 1999 were temporarily elevated by the Taxpayer Relief Act of 1997, which permitted the postponement of some excise tax payments from August and September 1998

Table 3-10.
CBO Projections of Excise Tax Receipts, by Category (By fiscal year, in billions of dollars)

	1999 ^a	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Highway	39	36	37	38	39	39	40	41	42	43	44	45
Airport	10	9	10	10	11	11	12	13	14	14	15	16
Telephone	5	6	6	6	6	7	7	8	8	8	9	9
Alcohol	8	8	8	8	8	8	8	8	8	8	8	8
Tobacco	5	7	7	8	8	8	8	8	8	8	8	8
Other	<u>3</u>	<u>3</u>	<u>3</u>	<u>3</u>	<u>3</u>	<u>3</u>	<u>3</u>	<u>3</u>	<u>3</u>	<u>3</u>	<u>3</u>	<u>3</u>
Total	70	68	71	73	75	77	79	81	84	86	89	91

SOURCE: Congressional Budget Office.

a. Total excise revenue is known for 1999, but the breakdown by category is estimated.

to the beginning of fiscal year 1999. The receipts return to normal in 2000 and thereafter, leaving a one-time drop in excise taxes as a percentage of GDP in 2000, after which the share declines slowly.

share of estate and gift taxes in 2010 at about the same level as in 2000.

Customs duties grow over time in tandem with imports. Their growth is retarded in the next few years, however, as tariff reductions enacted in 1994 are phased in.

Other Sources of Revenue

Smaller amounts of revenue come from estate and gift taxes, customs duties, and numerous miscellaneous sources (see Table 3-11).

Estate and gift taxes have tended to grow more rapidly than income because the unified credit for the estate and gift tax, which effectively exempts some assets from the tax, is not indexed for inflation. (The annual exclusion for gifts is indexed for inflation, but the \$10,000 level will not change until the cumulative price change since 1997 is at least 10 percent.) In the next decade, however, the higher unified credits enacted in the Taxpayer Relief Act of 1997 will be phased in, more than offsetting the absence of indexing and tending to reduce receipts relative to GDP. At the same time, however, demographic effects of the aging population will tend to increase estate tax receipts. These effects combine to leave the projected GDP

The largest component of miscellaneous receipts is the profits of the Federal Reserve System, which are turned over to the Treasury and counted as revenues. Those profits depend on interest rates and the system's gains and losses on its foreign currency holdings. The Consolidated Appropriations Act, however, requires the Federal Reserve to turn over to the Treasury about \$3.8 billion of its "surplus," or capital (earnings that the Federal Reserve previously retained as a reserve), and that raises the contribution of Federal Reserve receipts to the Treasury in 2000. But the Federal Reserve is expected to rebuild its capital in 2001 by reducing the amount of receipts that it would otherwise turn over in that year. Consequently, those receipts are expected to be lower by a corresponding amount in 2001 and then to resume their normal level.

Another significant component of miscellaneous receipts is the Universal Service Fund. Collected from the telecommunications industry, money from the

Table 3-11.
CBO Projections of Other Sources of Revenue (By fiscal year, in billions of dollars)

	Actual 1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Estate and Gift	28	30	32	33	35	36	37	38	40	42	45	48
Customs Duties	18	19	20	22	23	25	26	27	28	29	30	31
Miscellaneous												
Federal Reserve	26	30	25	30	31	32	32	33	35	36	38	39
Universal Service Fund	4	5	5	5	7	11	12	12	12	12	12	12
Other	5	5	6	6	6	7	6	6	5	5	5	5
Subtotal	35	40	36	41	44	49	50	52	51	53	55	57
Total	81	90	87	96	102	110	113	116	119	124	130	136

SOURCE: Congressional Budget Office.

fund is intended to finance Internet service for libraries and schools and subsidize basic telephone service for high-cost areas and low-income households. That source of revenue hovers close to \$5 billion until 2004, then jumps to about \$12 billion as more elements of the program get under way.

Expiring Tax Provisions

CBO's revenue projections assume that current tax law remains unchanged and that scheduled changes and expirations occur on time. The sole exception to that approach is the expiration of excise taxes dedicated to trust funds. Under the rules governing the construction of CBO's baseline, those taxes are included in the revenue projections even if they are scheduled to expire.

The largest trust fund excise taxes that are slated to expire during the next decade finance the Highway Trust Fund. Some of the taxes for that fund are permanent, but most of them expire on September 30, 2005. Extending those taxes at today's rates contributes about \$36 billion to CBO's revenue projections in 2010, about 40 percent of total excise tax receipts.

The assumed extension of other expiring trust fund taxes accounts for smaller amounts in 2010. Taxes dedicated to the Airport and Airway Trust Fund, scheduled to expire at the end of fiscal year 2007, contribute about \$15 billion in revenues in 2010. Taxes for the Leaking Underground Storage Tank Trust Fund, set to expire on March 31, 2005, contribute over \$200 million in 2010. No other expiring tax provisions are automatically extended in CBO's projections.

Only one provision is scheduled to expire in 2000. It allows corporations to receive an enhanced deduction for computer equipment and software that they donate to elementary and secondary schools. Extending that provision through the end of the projection period would lower revenues by about \$100 mil-

lion a year, or by roughly \$1 billion over the projection period (see Table 3-12).

Fourteen provisions are slated to expire in 2001. They would all reduce revenues if extended. All but four of them had either expired at the end of 1998 or been scheduled to expire in 1999 or 2000 but were extended in title V of the Ticket to Work and Work Incentives Improvement Act of 1999 (the Tax Relief Extension Act of 1999). Extending all 14 provisions through 2010 would lower revenues by a total of about \$67 billion over the projection period and by \$14 billion in 2010. Almost half of the cost over the projection period would come from the provision that allows individuals to claim certain personal credits against the AMT. Without that provision, as assumed in CBO's baseline beyond 2001, some taxpayers would be unable to claim the new child and education tax credits.

Seven provisions expire between 2002 and 2008, two of which would reduce revenues if extended. The research and experimentation tax credit, first enacted in 1981, affects businesses. In 1999, the Congress extended that tax benefit for the ninth time since 1985. The recent five-year extension (through June 2004) is its longest. Extending the provision beyond 2004 and through 2010 would reduce revenues by about \$24 billion over that period. Extending the other provision—the tax incentive for investment in the District of Columbia—would cost about \$1 billion through 2010.

Four provisions that expire between 2002 and 2008 would raise revenue if extended. The Balanced Budget Act of 1997 gradually raised the retirement contributions of federal civilian employees through 2002. If the rate for 2002, which is 0.5 percentage points higher than the rate in 1998, continued through the projection period, revenues would be almost \$6 billion higher through 2010. Extending the luxury tax on passenger vehicles beyond 2002 would raise revenues by about \$2 billion. Extending both the Internal Revenue Service's user fees and the provision that allows employers to transfer excess assets in defined benefit plans to a special account of health benefits for retirees would raise less than \$50 million a year.

Table 3-12.
Effect of Extending Tax Provisions That Will Expire Before 2010 (By fiscal year, in billions of dollars)

Tax Provision	Expiration Date	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Provisions Expiring in 2000												
Corporate Contributions of Computers to Schools	12/31/00	n.a.	*	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Provisions Expiring in 2001												
Generalized System of Preferences	9/30/01	n.a.	n.a.	-0.5	-0.5	-0.5	-0.6	-0.6	-0.6	-0.7	-0.7	-0.7
Andean Trade Preference Initiative	12/4/01	n.a.	n.a.	*	*	*	*	*	*	*	*	*
Brownfields Environmental Remediation	12/31/01	n.a.	**	*	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Credit for Electric Vehicles	12/31/01	n.a.	n.a.	*	*	*	*	*	-0.1	-0.1	-0.2	-0.3
Credits for Electricity Production from Wind and Biomass	12/31/01	n.a.	n.a.	*	*	*	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Credit for First-Time Homebuyers in the District of Columbia	12/31/01	n.a.	n.a.	*	*	*	*	*	*	*	*	*
Deductions for Clean-Fuel Vehicles and Refueling Property	12/31/01	n.a.	n.a.	*	*	*	*	*	*	*	*	*
Exclusion for Employer-Provided Education Assistance	12/31/01	n.a.	n.a.	-0.1	-0.4	-0.4	-0.4	-0.4	-0.5	-0.5	-0.5	-0.5
Net Income Limitation for Marginal Properties	12/31/01	n.a.	n.a.	*	*	*	*	*	*	*	*	*
Qualified Zone Academy Bonds	12/31/01	n.a.	n.a.	*	*	*	*	-0.1	-0.1	-0.1	-0.1	-0.1
Subpart F for Active Financing Income	12/31/01	n.a.	n.a.	-0.2	-1.2	-1.4	-1.6	-1.8	-2.1	-2.4	-2.8	-3.1
Treatment of Nonrefundable Personal Credits Under the AMT	12/31/01	n.a.	n.a.	-0.3	-1.4	-1.7	-2.4	-3.2	-4.1	-5.3	-6.4	-7.9
Welfare-to-Work Credit	12/31/01	n.a.	n.a.	*	-0.1	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2
Work Opportunity Credit	12/31/01	n.a.	n.a.	-0.1	-0.3	-0.4	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5
Provisions Expiring Between 2002 and 2008												
Federal Civilian Retirement Contributions	12/31/02	n.a.	n.a.	n.a.	0.5	0.7	0.7	0.7	0.7	0.8	0.8	0.8
Luxury Tax on Passenger Vehicles	12/31/02	n.a.	n.a.	n.a.	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3
Tax Incentive for Investment in the District of Columbia	12/31/02	n.a.	n.a.	n.a.	*	-0.1	-0.1	-0.1	-0.2	-0.2	-0.2	-0.3
IRS User Fees	9/30/03	n.a.	n.a.	n.a.	n.a.	**	**	**	**	**	**	**
Credit for Research and Experimentation	6/30/04	n.a.	n.a.	n.a.	n.a.	-0.4	-2.5	-3.2	-3.8	-4.3	-4.7	-4.9
Transfer of Excess Assets in Defined Benefit Plans	12/31/05	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	**	**	**	**	**
FUTA Surtax of 0.2 Percentage Points	12/31/07	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0	0	0

SOURCES: Joint Committee on Taxation; Congressional Budget Office.

NOTES: n.a. = not applicable; AMT = alternative minimum tax; IRS = Internal Revenue Service; FUTA = Federal Unemployment Tax Act.

* = loss of less than \$50 million.

** = gain of less than \$50 million.

One provision has no effect on revenues. Although the Federal Unemployment Tax Act surcharge brings in about \$2 billion a year, that revenue raises rebates to the states by the same amount. CBO as-

sumes that states use those rebates to lower their unemployment insurance tax rates, so extending the surcharge would have no net effect on revenue.

The Spending Outlook

The Congressional Budget Office expects federal spending to total \$1.8 trillion in fiscal year 2000. Under current policies, that figure is projected to rise to between \$2.2 trillion and \$2.5 trillion in 2010, depending on the path assumed for spending on discretionary programs (see Table 4-1).

Under CBO's three baseline variations (see the discussion below), federal spending as a percentage of the economy declines from its current level. In the 1960s, federal spending averaged about 19 percent as a share of the country's gross domestic product and then rose to about 20 percent in the 1970s and 22 percent in the 1980s before declining to just under 19 percent in 1999. In 2000, federal spending will drop further, to about 18.5 percent of GDP. CBO estimates that it will continue to fall slowly over the next decade, reaching between 15.1 percent and 16.5 percent of GDP in 2010, depending on the assumption made about discretionary spending (see Table 4-1).

In comparison with CBO's July 1999 baseline (which assumed that discretionary spending would equal CBO's estimates of the statutory caps and increase at the rate of inflation thereafter), CBO is now projecting lower spending over the next decade. For example, comparing the two capped baselines—the one for July and CBO's new baseline version that uses the same assumption about discretionary spending as July's—yields estimates of outlays from 2000 through 2009 (the last year of the July baseline) that are \$245 billion lower than those projected last summer (see Chapter 1 for additional details).

The largest reestimates of spending occur in Medicare, interest on public debt, and discretionary outlays. For 2000 to 2009, CBO has adjusted its estimate of Medicare spending downward by a total of \$149 billion because of such factors as smaller increases in payment rates, continuing emphasis on improving compliance with program rules, and a larger-than-anticipated drop in the use of home health services. For the same period, CBO has increased its estimate of interest paid on debt held by the public by \$57 billion as a result of higher projected interest rates; however, savings in debt-service costs from larger projected surpluses more than offset that increase, leading to lower estimated net interest on public debt. Countering the downward trend in mandatory and net interest spending, the appropriation process added \$25 billion in discretionary outlays in 2000. That addition has differing effects on CBO's three baseline variations: it does not significantly affect the capped baseline after 2000 but results in higher spending for discretionary programs under the inflated and "freeze" baselines (see below).

Federal spending can be divided into several categories based on its treatment in the budget process:

- o *Discretionary spending*—which pays for such things as defense, education, transportation, national parks, the space program, and foreign aid—accounts for about one-third of the budget. Discretionary programs are controlled by annual appropriation acts. Policymakers decide each year how many dollars to devote to continuing current activities and funding new ones.

Table 4-1.
CBO Projections of Outlays Under Alternative Versions of the Baseline (By fiscal year)

	Actual 1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
In Billions of Dollars												
<i>Discretionary Spending Grows at the Rate of Inflation After 2000</i>												
Discretionary Spending	575	603	635	650	669	684	702	716	730	750	768	786
Mandatory Spending	977	1,020	1,071	1,119	1,182	1,249	1,329	1,385	1,460	1,550	1,643	1,744
Offsetting Receipts	-78	-79	-85	-91	-94	-93	-98	-103	-108	-113	-119	-125
Net Interest	230	224	218	209	194	177	160	142	122	101	80	68
Proceeds from Investing												
Excess Cash	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>-3</u>	<u>-16</u>
Total	1,704	1,769	1,839	1,888	1,950	2,017	2,093	2,140	2,204	2,287	2,369	2,457
On-budget	1,383	1,442	1,504	1,545	1,598	1,656	1,721	1,756	1,808	1,879	1,944	2,014
Off-budget	321	327	336	343	352	361	372	384	396	409	425	443
<i>Discretionary Spending Is Frozen at the Level Enacted for 2000</i>												
Discretionary Spending	575	603	624	628	627	624	625	623	620	622	621	621
Mandatory Spending	977	1,020	1,071	1,119	1,182	1,249	1,329	1,385	1,460	1,550	1,643	1,744
Offsetting Receipts	-78	-79	-85	-91	-94	-93	-98	-103	-108	-113	-119	-125
Net Interest	230	224	218	208	191	171	150	127	101	81	72	68
Proceeds from Investing												
Excess Cash	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>-9</u>	<u>-33</u>	<u>-65</u>
Total	1,704	1,769	1,829	1,864	1,905	1,951	2,006	2,032	2,073	2,130	2,185	2,244
On-budget	1,383	1,442	1,493	1,521	1,554	1,590	1,635	1,649	1,678	1,722	1,761	1,801
Off-budget	321	327	336	342	352	361	372	383	395	408	424	442
<i>Discretionary Spending Equals CBO's Estimates of the Caps Through 2002 and Grows at the Rate of Inflation Thereafter</i>												
Discretionary Spending	575	603	578	571	585	600	615	630	646	662	679	696
Mandatory Spending	977	1,020	1,071	1,119	1,182	1,249	1,329	1,385	1,460	1,550	1,643	1,744
Offsetting Receipts	-78	-79	-85	-91	-94	-93	-98	-103	-108	-113	-119	-125
Net Interest	230	224	217	204	183	162	139	115	92	77	72	68
Proceeds from Investing												
Excess Cash	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>-2</u>	<u>-16</u>	<u>-41</u>	<u>-70</u>
Total	1,704	1,769	1,781	1,802	1,856	1,918	1,985	2,027	2,087	2,161	2,234	2,313
On-budget	1,383	1,442	1,446	1,460	1,504	1,557	1,613	1,644	1,692	1,752	1,809	1,870
Off-budget	321	327	336	343	352	361	372	384	396	409	425	443

Table 4-1.
Continued

	Actual 1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
As a Percentage of GDP												
<i>Discretionary Spending Grows at the Rate of Inflation After 2000</i>												
Discretionary Spending	6.3	6.3	6.3	6.2	6.1	6.0	5.9	5.7	5.6	5.5	5.4	5.3
Mandatory Spending	10.7	10.6	10.7	10.7	10.8	10.9	11.1	11.1	11.2	11.4	11.6	11.7
Offsetting Receipts	-0.9	-0.8	-0.8	-0.9	-0.9	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8
Net Interest	2.5	2.3	2.2	2.0	1.8	1.6	1.3	1.1	0.9	0.7	0.6	0.5
Proceeds from Investing												
Excess Cash	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>*</u>	<u>-0.1</u>
Total	18.7	18.5	18.3	18.0	17.8	17.7	17.6	17.2	16.9	16.8	16.7	16.5
On-budget	15.2	15.1	15.0	14.7	14.6	14.5	14.4	14.1	13.9	13.8	13.7	13.6
Off-budget	3.5	3.4	3.3	3.3	3.2	3.2	3.1	3.1	3.0	3.0	3.0	3.0
<i>Discretionary Spending Is Frozen at the Level Enacted for 2000</i>												
Discretionary Spending	6.3	6.3	6.2	6.0	5.7	5.5	5.2	5.0	4.8	4.6	4.4	4.2
Mandatory Spending	10.7	10.6	10.7	10.7	10.8	10.9	11.1	11.1	11.2	11.4	11.6	11.7
Offsetting Receipts	-0.9	-0.8	-0.8	-0.9	-0.9	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8
Net Interest	2.5	2.3	2.2	2.0	1.7	1.5	1.3	1.0	0.8	0.6	0.5	0.5
Proceeds from investing												
Excess Cash	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>-0.1</u>	<u>-0.2</u>	<u>-0.4</u>
Total	18.7	18.5	18.2	17.8	17.4	17.1	16.8	16.3	15.9	15.7	15.4	15.1
On-budget	15.2	15.1	14.9	14.5	14.2	13.9	13.7	13.2	12.9	12.7	12.4	12.1
Off-budget	3.5	3.4	3.3	3.3	3.2	3.2	3.1	3.1	3.0	3.0	3.0	3.0
<i>Discretionary Spending Equals CBO's Estimates of the Caps Through 2002 and Grows at the Rate of Inflation Thereafter</i>												
Discretionary Spending	6.3	6.3	5.8	5.4	5.3	5.3	5.2	5.1	5.0	4.9	4.8	4.7
Mandatory Spending	10.7	10.6	10.7	10.7	10.8	10.9	11.1	11.1	11.2	11.4	11.6	11.7
Offsetting Receipts	-0.9	-0.8	-0.8	-0.9	-0.9	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8
Net Interest	2.5	2.3	2.2	1.9	1.7	1.4	1.2	0.9	0.7	0.6	0.5	0.5
Proceeds from Investing												
Excess Cash	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>*</u>	<u>-0.1</u>	<u>-0.3</u>	<u>-0.5</u>
Total	18.7	18.5	17.7	17.2	16.9	16.8	16.6	16.3	16.0	15.9	15.7	15.6
On-budget	15.2	15.1	14.4	13.9	13.7	13.6	13.5	13.2	13.0	12.9	12.7	12.6
Off-budget	3.5	3.4	3.3	3.3	3.2	3.2	3.1	3.1	3.0	3.0	3.0	3.0

Memorandum:Gross Domestic Product
(Billions of dollars)

9,116 9,583 10,038 10,496 10,954 11,422 11,924 12,453 13,006 13,583 14,202 14,856

SOURCE: Congressional Budget Office.

NOTE: n.a. = not applicable; * = less than 0.05 percent.

Because such appropriations are set annually, any assumption about future appropriations—especially for a 10-year period—is somewhat arbitrary. Furthermore, recent appropriation action does not clearly indicate what the policy for future discretionary spending will be. Therefore, CBO has developed three baselines distinguished by different assumptions about discretionary spending in the future. Under the inflated baseline, the level of appropriations for discretionary spending in 2000 grows at the rate of inflation. Under the freeze baseline, the level of appropriations in 2000 is held constant throughout the baseline's projection period.¹ Under the capped baseline, CBO assumes that discretionary spending equals CBO's estimates of the caps through 2002 and grows at the rate of inflation thereafter.

- o *Entitlements and other mandatory spending* constitute more than half of the federal budget and consist overwhelmingly of benefit programs such as Social Security, Medicare, and Medicaid. The Congress generally controls spending for those programs by setting rules for eligibility, benefit formulas, and so on rather than by voting for dollar amounts each year.² CBO's baseline projections of mandatory spending assume that existing laws and policies remain unchanged. The projections also assume that expiring programs will be extended.
- o *Offsetting receipts*—fees and other charges that are recorded as negative outlays—are collected without annual appropriation action. (Negative outlays that are triggered by appropriation action are called offsetting collections and are recorded under discretionary spending.) Offsetting receipts differ from revenues in that revenues are collected on the basis of the government's powers

of taxation, whereas offsetting receipts are generally collected from other government accounts or paid by the public for business-type transactions (such as premiums for Medicare and rents and royalties from leases for oil and gas drilling on the Outer Continental Shelf).

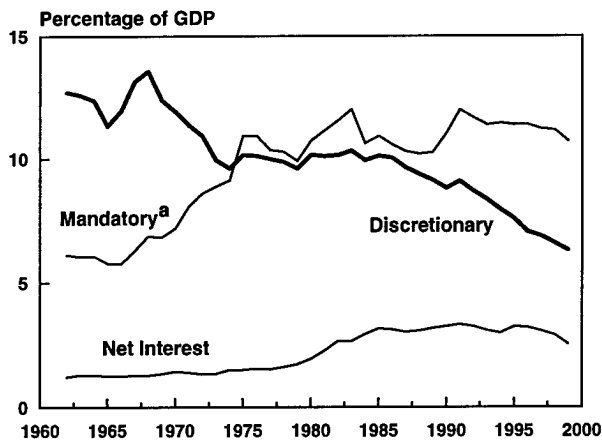
- o The size of the government's debt, annual budget surpluses, and market interest rates drive *net interest* spending. It includes the borrowing activities of the Treasury Department, interest that the government pays (for example, on late refunds issued by the Internal Revenue Service), and interest that the government collects from various sources (such as credit financing accounts).
- o The projected surpluses that are a major feature of the budgetary horizon have led to a new category on the outlay side of the budget—*proceeds from investing excess cash*, or the return that CBO estimates will be earned on surplus cash that is not used to redeem debt held by the public. CBO's baselines assume that a portion of the surpluses projected for the 2001-2010 period will be used to pay down debt. But because some debt will not yet have matured or will be unavailable for repurchase, the projected surpluses may exceed the amount of debt that can absorb such cash. CBO's projections thus assume that excess cash will be invested at a rate of return equal to the average rate projected for Treasury bills and notes. However, CBO makes no explicit assumptions about the kind of investments that might be chosen (for example, whether they would be in debt or equity instruments, in the public or private sector, or in the United States or abroad).

The mix of federal spending has changed significantly over time. Today, the government spends more—as a share of GDP—on entitlement programs and less on discretionary activities than it did in the past. Spending on entitlements and other mandatory programs (including offsetting receipts) increased from 4.9 percent of GDP in 1962 to 9.9 percent in 1999. Over the same period, discretionary spending fell from 12.7 percent of GDP to 6.3 percent (see Figure 4-1). (For detailed annual data on each of the broad categories of spending since 1962, see Appendix E.)

1. Box 1-2 on page 14 discusses the treatment of advance appropriations under the inflated and freeze baselines.

2. Pay-as-you-go discipline governs legislation enacted through 2002, but sequestration (an across-the-board cut) applies to spending through 2006 to eliminate any projected increase in the deficit or decrease in the surplus in the years beyond 2002.

Figure 4-1.
Major Components of Spending as a
Percentage of GDP, Fiscal Years 1962-1999



SOURCE: Congressional Budget Office based on data from the Office of Management and Budget.

a. Excludes offsetting receipts.

Under CBO's current projections, those trends continue. By 2010, mandatory spending (including offsetting receipts) is expected to increase to 10.9 percent of GDP as discretionary spending falls to between 4.2 percent and 5.3 percent of GDP. CBO estimates that mandatory spending will continue to grow faster than the economy—at a rate of 5.6 percent a year—led by the two big health care programs, Medicare and Medicaid, which are projected to grow at average annual rates of 6.9 percent and 8.6 percent, respectively (see Table 4-2). Those growth rates are faster than the ones of the past three years but slower than those of the early 1990s.

From 2000 to 2010, CBO projects that discretionary spending will rise at various rates depending on which baseline is used: the inflated baseline shows growth of 2.7 percent; the freeze baseline, growth of 0.3 percent; and the capped baseline, 1.4 percent growth. Discretionary spending was virtually unchanged from 1991 through 1996 but grew by an average annual rate of 2.5 percent over the next three years. Total outlays, other than net interest, are projected to grow by 3.5 percent to 4.5 percent a year depending on which baseline is used. Those rates compare with 3.2 percent over the 1991-1996 period and 3.7 percent over the 1996-1999 span.

Discretionary Spending

Each year, the Congress starts the appropriation process anew. The annual appropriation acts it passes provide new budget authority (the authority to enter into financial obligations) for discretionary programs and activities. That authority translates into outlays when the money is actually spent. Although some funds are spent quickly, some are disbursed over several years. In any given year, discretionary outlays include spending both from new budget authority and from amounts appropriated previously.

Trends in Discretionary Spending

Since 1991, dollar caps set by the Deficit Control Act, as amended by the Budget Enforcement Act of 1990, have placed statutory restrictions on spending for discretionary programs. While the caps have been in effect, discretionary spending as a share of GDP has dropped from 9.0 percent in 1991 to 6.3 percent in 1999. In nominal, or dollar, terms, total discretionary spending from 1991 through 1996 was essentially unchanged. (Discretionary outlays were only \$1 billion more in 1996 than in 1991.) After 1996, discretionary spending began to rise. Yet even including the increases of the past few years, growth in discretionary spending has averaged less than 1.0 percent annually since 1991.

Restrained growth in total discretionary spending, however, masks significantly different, and offsetting, trends in defense and nondefense outlays. Defense outlays fell from \$320 billion in 1991 to \$266 billion in 1996—an average decline of 3.6 percent per year. Meanwhile, nondefense spending jumped from \$214 billion to \$269 billion (see Table 4-3).

The cutback in defense spending can be traced to the end of the Cold War, which led to reductions in military personnel and a slowdown in the procurement of new weapons. Attrition, early retirement, other voluntary incentives, and base closures have thinned the armed services from around 2 million members in 1991 to just under 1.4 million in 1999. For the same reasons, civilian employment by the Department of

Defense has dropped from a little over 1 million eight years ago to about 700,000 today. Reductions in forces have also entailed retiring some older equipment without replacing it.

After the steep fall in defense outlays of the early and middle 1990s, pressures began to build to reverse that decline. Many analysts advocated more money for defense because they believed that U.S. forces were spread too thinly and that spending needed to rise to ensure readiness and to improve military health care

and other forms of compensation. A further factor, they argued, was that large blocks of equipment purchased during the defense buildup of the early 1980s required refurbishing or replacement. Although defense spending began to grow slightly after 1996, those pressures appear to remain.

Both defense and nondefense outlays have grown since 1996, although growth in nondefense spending has continued to outstrip that for defense. From 1996 through 1999, nondefense outlays grew at an average

Table 4-2.
Average Annual Rate of Growth in Outlays (By fiscal year, in percent)

	1991-1996	1996-1999	2000-2010		
			Inflated Baseline ^a	Freeze Baseline ^b	Capped Baseline ^c
Discretionary	*	2.5	2.7	0.3	1.4
Defense	-3.6	1.2	2.6	0.2	n.a.
Nondefense	4.7	3.8	2.8	0.4	n.a.
Mandatory ^d	5.6	4.6	5.6	5.6	5.6
Social Security	5.4	3.7	5.0	5.0	5.0
Medicare	10.9	3.1	6.9	6.9	6.9
Medicaid	11.9	5.5	8.6	8.6	8.6
Other	-0.1	7.2	3.3	3.3	3.3
Net Interest	4.4	-1.6	-11.2	-11.2	-11.2
Total Outlays ^e	3.3	3.0	3.3	2.4	2.7
Total Outlays Excluding Net Interest ^e	3.2	3.7	4.5	3.5	3.8
Memorandum:					
Consumer Price Index	2.8	2.1	2.5	2.5	2.5
Growth of Nominal GDP	5.6	5.8	4.5	4.5	4.5

SOURCE: Congressional Budget Office.

NOTE: * = between zero and 0.1 percent; n.a. = not applicable.

- a. Assumes that discretionary spending grows at the rate of inflation after 2000.
- b. Assumes that discretionary spending is frozen at the level enacted for 2000.
- c. Assumes that discretionary spending equals CBO's estimates of the statutory caps through 2002 and grows at the rate of inflation thereafter.
- d. Includes offsetting receipts.
- e. Includes proceeds from investing excess cash.

Table 4-3.
Defense and Nondefense Discretionary Outlays, Fiscal Years 1991-2000

	Defense Outlays		Nondefense Outlays		Total Discretionary Outlays
	In Billions of Dollars	As a Percentage of Total Discretionary Outlays	In Billions of Dollars	As a Percentage of Total Discretionary Outlays	
1991	320	60	214	40	533
1992	303	57	232	43	535
1993	292	54	249	46	541
1994	282	52	262	48	544
1995	274	50	272	50	546
1996	266	50	269	50	534
1997	272	49	277	51	549
1998	270	49	284	51	555
1999	275	48	300	52	575
2000 ^a	283	47	320	53	603

SOURCES: Office of Management and Budget for 1991 through 1998 and Congressional Budget Office for 1999 and 2000.

a. Estimated.

annual rate of 3.8 percent compared with 1.2 percent for defense outlays (see Table 4-2). However, despite the apparently rapid growth in nondefense (relative to defense) spending, nondefense outlays as a percentage of GDP ended 1999 no higher than they were in 1991.

Impact of Offsetting Collections

The discretionary outlays that are part of CBO's baseline actually have two components: gross spending and offsetting collections. For example, net discretionary outlays for 1999, which totaled \$575 billion, reflect approximately \$593 billion in gross spending and nearly \$18 billion in offsetting collections. Such collections generally comprise fees charged by agencies, such as patent registration fees paid to the Patent and Trademark Office. In the budget, they appear as a credit to the discretionary spending accounts of those agencies.

In the past several years, offsetting collections credited to the defense accounts have grown slowly, rising less than half a billion dollars above the \$9 billion recorded in 1994. But collections credited to non-defense accounts have burgeoned, climbing from

about \$4 billion in 1994 to almost \$8 billion in 1999.³ Some of that growth stems from market-driven increases in the demand for government services (for example, services provided by the Securities and Exchange Commission to financial markets), and some of it derives from increased appropriations for regulatory activities and other legislative action. But the changes in offsetting collections have not had a major impact on overall trends in discretionary outlays because offsetting collections are still small relative to gross discretionary spending. The rise in offsetting collections has allowed gross discretionary outlays for nondefense programs to grow slightly faster than is apparent from the net outlay figures (see Table 4-4). From 1994 through 1999, gross outlays grew at an average annual rate of 3.0 percent compared with 2.8 percent for net outlays.

- For a consistent comparison with 1994, the \$8 billion in nondefense offsetting collections for 1999 excludes \$1 billion in offsetting collections from the U.S. Mint (although that \$1 billion is included in total offsetting collections for 1999). Before 1996, a portion of the proceeds from new coins (the amount needed to cover the cost of producing them) was recorded in the budget as a mandatory offsetting receipt but is now recorded as a discretionary offsetting collection that is credited directly to the Mint.

Table 4-4.
Nondefense Discretionary Spending:
Gross Versus Net
(By fiscal year, in billions of dollars)

	1994	1999	Average Annual Rate of Growth, 1994-1999 (Percent)
Gross Outlays	266	308	3.0
Net Outlays	262	300	2.8

SOURCE: Congressional Budget Office.

NOTE: Excludes offsetting collections from the U.S. Mint. Before 1996, a portion of the proceeds from new coins (the amount needed to cover the cost of producing them) was recorded in the budget as a mandatory offsetting receipt but is now recorded as a discretionary offsetting collection credited directly to the Mint.

Background on the Caps

Statutory caps on budget authority and outlays originated with the Budget Enforcement Act of 1990. The Omnibus Budget Reconciliation Act of 1993 extended them through 1998, and the Balanced Budget Act of 1997 updated and then extended them through 2002. The current caps, however, are not fixed at the amounts set in 1997 because—as the law allows—emergency requirements and certain other, smaller expenditures have increased the levels of the caps in recent years.

For 2000, caps apply to four categories of discretionary spending. The bulk of discretionary spending is in the first category, called overall discretionary spending, which comprises the spending categories previously separated as defense and nondefense. The other three categories are violent crime reduction, highways, and mass transit. For 2001 and 2002, only three categories remain, because the act lumps violent crime reduction spending under the overall discretionary cap.

For the overall discretionary and violent crime reduction categories, separate limits apply to budget

authority and outlays. In the highway and mass transit categories, the caps apply only to outlays. When the caps on spending restrict both budget authority and outlays, the more stringent of the two prevails.

The caps are enforced through sequestration—an across-the-board cut in funding for discretionary programs to eliminate excess spending. At the end of each session of Congress, the Office of Management and Budget determines whether a sequestration is required, using its own adjustments of the discretionary caps and estimates of the spending that will result from appropriation action. CBO's sequestration estimates are purely advisory.

Exceeding the Caps in 2000

CBO's estimates of the spending limits for 2000 (combining all four categories of caps) are \$568 billion in budget authority and \$597 billion in outlays.⁴ By CBO's estimate, both budget authority and outlays for discretionary programs will exceed the caps for 2000. In the absence of further legislative action, CBO expects budget authority for 2000 to total \$570 billion and outlays to total \$603 billion—thereby exceeding the caps by \$2 billion in budget authority and \$6 billion in outlays.⁵ However, OMB is unlikely to determine that a sequestration is necessary for 2000, principally because its estimates of outlays from appropriation bills are lower than CBO's.

In an attempt to comply with the caps for 2000 without substantially cutting program resources, the Congress and the President used a number of approaches, including advance appropriations, obligation and payment delays, and emergency designations (discussed in Box 1-1 on page 12). In a further effort to

4. See CBO's *Final Sequestration Report for Fiscal Year 2000* (December 2, 1999) for more information on the statutory caps and CBO's estimates of them.

5. In its report *The Budget for Fiscal Year 2000: An End-of-Session Summary* (December 2, 1999), CBO estimated that discretionary outlays in 2000 would total \$617 billion, or \$14 billion more than the current estimate of \$603 billion. The difference is largely the result of reclassifications of spending in accordance with Congressional scorekeeping rules (see Chapter 1 for details).

meet the caps, the Congress employed directed scoring, and the Congress and the President agreed on an across-the-board reduction in spending. Although none of those measures are new, the Congress and the President used some of them this year in different ways or to a greater extent than in previous years.

Advance Appropriations. An advance appropriation enacts budget authority in the current fiscal year that is not available until a future fiscal year. Although the Congress and the President have provided advance appropriations in the past, the amount of budget authority appropriated in this manner has more than doubled in each of the past two years. Compared with about \$5 billion in advances of budget authority for 1999, an estimated \$23 billion in advances will become effective in 2001. That budget authority does not count against the cap in the year it was enacted but against the 2001 cap—the year in which it becomes available.

Obligation and Payment Delays. Obligation and payment delays postpone outlays that would have occurred in 2000 until 2001. The Congress and the President have often employed obligation delays when the federal fiscal year does not coincide with a program's annual spending cycle. For example, education programs generally receive funding for an academic-year cycle that begins in July rather than for the government's normal fiscal year beginning in October. The limitation placed on those funds to not commit—or obligate—them until July is called an obligation delay. For 2000, the Congress and the President have enacted more obligation delays than in recent years, and they have done so for programs with the same annual spending cycle as the federal government. In addition, for some federal employees, the Congress and the President have shifted the pay date that falls on the last Friday of the fiscal year so that the payment occurs in 2001 rather than in 2000. In total, appropriations for foreign operations, health and human services, and defense included obligation and payment delays that pushed almost \$8 billion of outlays from 2000 into 2001.

Directed Scoring. The budget committees have the authority and responsibility to determine which estimates are used for Congressional scorekeeping. Therefore, they may instruct CBO to use an estimate

for an appropriation action that is different from the one that CBO would otherwise use. For 2000, the committees directed CBO to use such estimates, which in many cases approximated OMB's calculations, for a wider variety of programs than in previous years (including defense, receipts from the auction of spectrum licenses, and student loans). Directed scoring lowered CBO's estimates of total budget authority by \$3 billion and of total outlays by about \$19 billion—but only for the purposes of Congressional scorekeeping. Neither CBO's baseline projections nor its advisory estimates for sequestration purposes include directed scoring.

Across-the-Board Reduction. The across-the-board reduction of 0.38 percent applicable to all 13 regular appropriation acts is the broadest and largest use of such a measure to date. CBO estimates that it will reduce budget authority by about \$2 billion and outlays by less than \$1 billion for fiscal year 2000. The President's budget, to be released in February, is expected to specify how the reduction will be executed.

Implications for 2001. The increased use of advance appropriations and obligation delays in 2000 decreases legislators' flexibility for meeting the discretionary caps in 2001. With those practices, the Congress and the President have shifted budget authority and outlays that would ordinarily have been recorded in 2000 into 2001. But the caps for 2001 were already lower than discretionary spending for 2000—by \$30 billion in budget authority and \$25 billion in outlays. As a result, the steps taken in an effort to adhere to the caps for 2000 have made it even more difficult to adhere to the caps for 2001.

The existence of separate categories of discretionary spending caps further limits the discretion that legislators have within aggregate cap levels in any given year. The caps for separate categories, such as highways and mass transit, may appear to limit spending for those areas of the budget, but they have actually been created to reserve funding for them. The caps allow increases in outlays of \$2.4 billion in 2001 for highway and mass transit programs. That puts added pressure on other discretionary programs, which will have to be cut to meet the spending cap on the residual category—overall discretionary spending—making it more difficult for legislators to react to any

changes in priorities that may occur in those programs.

Composition of Discretionary Spending in 2000

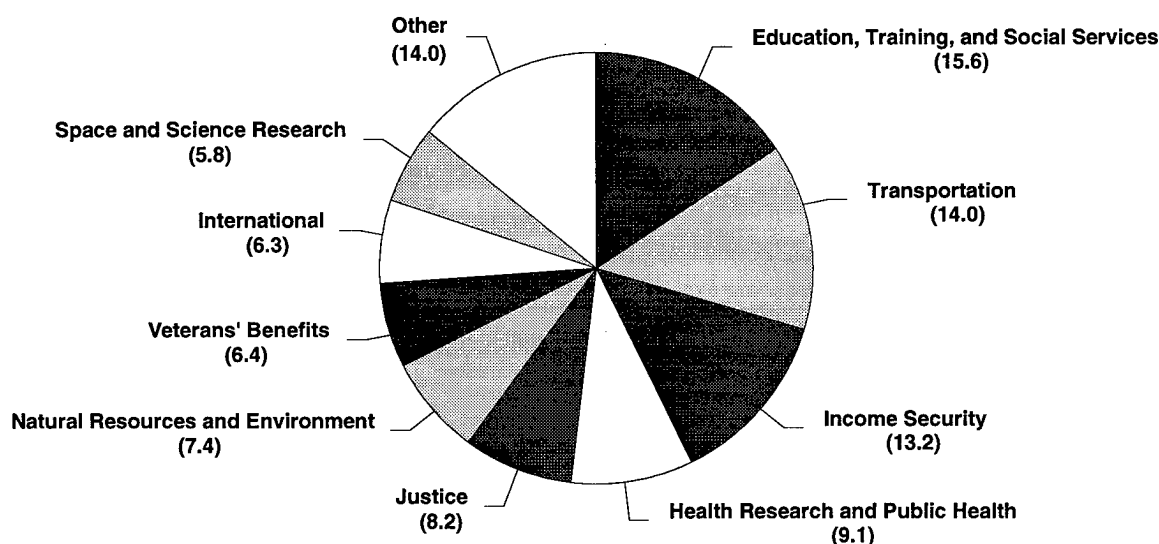
CBO's estimate of discretionary spending in 2000, \$603 billion, is \$28 billion higher than the 1999 level. CBO expects both defense and nondefense outlays to increase in 2000. Projections show nondefense discretionary spending rising in dollar terms from \$300 billion in 1999 to \$320 billion in 2000. Defense spending is expected to reach \$283 billion in 2000, up \$8 billion from its 1999 level. As a percentage of GDP, those estimates reflect an increase in nondefense spending but a slight decline in defense spending. The faster growth in nondefense outlays boosts their share of total discretionary outlays to 53 percent in 2000.

Nondefense discretionary spending is fairly evenly distributed among several categories, the three largest of which each account for between 13 percent and 16 percent of that spending in 2000 (see Figure

4-2). The education, training, and social services category, with expected outlays of \$50 billion, includes all federal programs related to education and employment as well as special services for children, families, and elderly and disabled people. Transportation (ground, air, water, and mass transit) is expected to record approximately \$45 billion in outlays in 2000. Under the income security category, almost three-quarters of the anticipated \$42 billion in spending for 2000 pays for housing assistance; the remainder mainly funds nutrition programs and the administrative costs of mandatory benefit programs.

Spending for other categories that account for more than 5 percent of nondefense discretionary outlays includes \$29 billion for health research and public health (including the Indian Health Service); \$26 billion for the administration of justice and violent crime reduction; \$24 billion for natural resources and the environment; \$20 billion for veterans' benefits (medical care and other noncash benefits); \$20 billion for international programs (mainly the conduct of foreign affairs, security assistance, and development and humanitarian aid); and \$18 billion for space and science research.

Figure 4-2.
Nondefense Discretionary Spending, by Category, Fiscal Year 2000 (In percent)



SOURCE: Congressional Budget Office.

NOTE: Projected nondefense discretionary spending for 2000 totals \$320 billion.

Three Discretionary Spending Paths for 2001 Through 2010

As noted earlier, CBO has prepared three versions of its baseline for the 2001-2010 period. Each makes a different assumption about the path of discretionary spending. The different baseline assumptions generate significantly different outcomes for both the extent of discretionary outlays and their share of total spending. Total discretionary outlays from 2001 through 2010 under the inflated baseline are more than \$850 billion higher than outlays under the freeze baseline and almost \$830 billion higher than outlays under the capped baseline. Under the inflated baseline, discretionary spending continues to be roughly one-third of total outlays, whereas under the freeze baseline, discretionary outlays fall to less than 28 percent of total spending.

The Inflated Baseline. For this baseline, CBO inflated budget authority from the level appropriated in 2000 by using the employment cost index (for expenditures related to federal personnel) and the GDP deflator (for other expenditures). The resulting average annual rate of growth in outlays over the 2000-2010 period is 2.7 percent, which approximates the average growth rate of 2.5 percent that prevailed from 1996 through 1999. Outlays in 2001 rise by more than just the rate of inflation, however, because of spending from increases in budget authority appropriated in prior years and the effect of obligation delays that push outlays from 2000 into 2001.

Assuming that discretionary funding grows with inflation leads to the highest level of spending among the three baselines. By 2010, discretionary outlays grow to \$786 billion, up \$183 billion from 2000 (see

Table 4-5.
CBO Projections of Discretionary Spending Under Alternative Versions of the Baseline
(By fiscal year, in billions of dollars)

	Actual 1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Discretionary Spending Grows at the Rate of Inflation After 2000												
Budget Authority	585	570	606	621	640	656	672	688	705	722	740	758
Outlays	575	603	635	650	669	684	702	716	730	750	768	786
Discretionary Spending Is Frozen at the Level Enacted for 2000												
Budget Authority	585	570	586	586	586	586	586	586	586	586	586	586
Outlays	575	603	624	628	627	624	625	623	620	622	621	621
Discretionary Spending Equals CBO's Estimates of the Caps Through 2002 and Grows at the Rate of Inflation Thereafter												
Budget Authority	585	570	540	550	564	578	592	607	622	638	654	670
Outlays	575	603	578	571	585	600	615	630	646	662	679	696

SOURCE: Congressional Budget Office.

NOTE: In CBO's projections, discretionary outlays are always higher than budget authority because of spending from the Highway Trust Fund and the Airport and Airways Trust Fund, which is subject to obligation limitations in appropriation acts. The budget authority for such programs is provided in authorizing legislation and is not considered discretionary. Another reason outlays exceed budget authority is that they include spending from appropriations provided in previous years.

Table 4-5 on page 79). Yet even under this baseline, discretionary spending as a percentage of GDP drops from 6.3 percent in 2000 to 5.3 percent in 2010, because the economy is projected to grow at a faster rate than that for inflation.

The Freeze Baseline. This baseline holds discretionary budget authority made available in 2000 at the same nominal level through 2010. In addition, this funding path includes almost \$15 billion of new advance appropriations that were enacted in 2000 but are not available until 2001. The freeze baseline extends that budget authority—which has already been committed for next year—through 2010.

The freeze in budget authority under this baseline leads to generally flat outlays in later years. However, since outlays for some programs lag behind budget authority, the increases in outlays in 2001 and 2002 under this baseline reflect previous hikes in budget authority. Small year-to-year differences after 2002 result from quirks in the timing of some payments and continued spending from some budget authority that was appropriated before 2000.

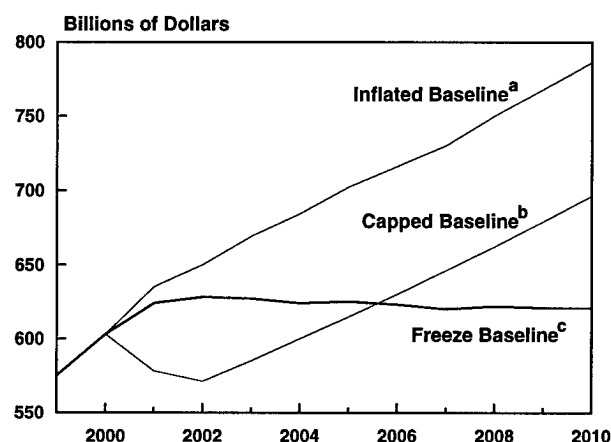
In nominal terms, discretionary spending would not change substantially over the 10-year projection period. (At \$621 billion in 2010, discretionary outlays are just \$18 billion higher than in 2000.) But in real terms, the level of spending in 2010 under this baseline represents a 21 percent drop from the 2000 level. As a percentage of GDP, discretionary spending under the freeze baseline falls more dramatically than under the inflated baseline. Starting in 2000 at 6.3 percent of GDP, discretionary outlays by 2010 are projected to equal just 4.2 percent of GDP under this baseline.

The Capped Baseline. The underlying assumption of this baseline is that discretionary budget authority and outlays will equal CBO's estimates of the statutory caps for 2001 and 2002. Under current law, the caps expire after 2002; therefore, beginning in 2003, the baseline simply assumes that discretionary outlays grow at the rate of inflation, rising to \$696 billion by 2010. That growth leads outlays under the capped baseline to slowly approach and then, in 2006, to surpass outlays under the freeze baseline. In 2010, outlays under the capped baseline are about \$74 billion, or about 12 percent, higher than outlays under the

freeze baseline. As a percentage of GDP, discretionary outlays under the capped baseline rapidly drop almost a whole percentage point between 2000 and 2002, from 6.3 percent to 5.4 percent. After 2002, they decline more slowly, reaching 4.7 percent of GDP in 2010.

Strict compliance with the statutory caps on budget authority for 2001 and 2002 would require sizable cuts in or more offsets to spending relative to levels in 2000. For 2001, the Congress and the President would have to pare budget authority by \$66 billion relative to the inflated baseline and \$46 billion compared with the freeze baseline. The caps on budget authority for 2002 allow a \$10 billion increase relative to 2001 but still keep budget authority far below the levels in the inflated and freeze baselines.

Figure 4-3.
CBO Projections of Discretionary Outlays Under Alternative Versions of the Baseline, Fiscal Years 1999-2010



SOURCE: Congressional Budget Office.

- Assumes that discretionary spending grows at the rate of inflation after 2000.
- Assumes that discretionary spending equals CBO's estimates of the statutory caps through 2002 and grows at the rate of inflation thereafter.
- Assumes that discretionary spending is frozen at the level enacted for 2000.

Given CBO's estimate that discretionary spending for 2000 will total \$603 billion, strict compliance with the outlay caps for 2001 would require a decrease in spending of \$25 billion, reducing total discretionary outlays for that year to \$578 billion. Outlays would have to decline further in 2002, to \$571 billion, to stay within that year's limits. Those initial contractions in spending incorporated in the capped baseline contrast sharply with both the historical trend of discretionary spending and CBO's other two baselines (see Figure 4-3). In 2002, as Table 4-5 shows, discretionary outlays under the capped baseline are \$57 billion lower than such outlays under the freeze baseline and \$79 billion lower than outlays under the inflated baseline.

Entitlements and Other Mandatory Spending

Currently, more than half of the \$1.8 trillion that the federal government spends supports entitlement programs and other types of mandatory spending (other than net interest). Most mandatory programs make payments to recipients—a wide variety of people, as well as businesses, nonprofit institutions, and state and local governments—that are eligible and apply for funds. Formulas set in law govern those payments; they are not constrained by annual appropriation bills.

As a share of total outlays, mandatory spending jumped from 32 percent in 1962 to 57 percent in 1999. If current policies remain unchanged, CBO estimates, it will continue to grow faster than other spending, reaching between 62 percent and 65 percent by 2004, or about twice the size of discretionary outlays. By 2010, mandatory spending will take up between 71 percent and 78 percent of total outlays.

The Deficit Control Act considers mandatory programs (other than Social Security) together with receipts and makes legislation that affects those budget categories subject to pay-as-you-go discipline through 2002. The pay-as-you-go budgetary restriction means that any increase in spending or reduction in receipts must be offset by cuts in other mandatory spending or by increases in revenues, as measured on an annual

basis.⁶ Violation of the pay-as-you-go rules triggers a sequestration—in this case, an across-the-board cut in certain mandatory spending programs—to offset any net reduction in the surplus. Social Security has its own set of procedural safeguards, which the Congress established to prevent policy actions that would worsen the long-term condition of the program's trust funds.

Less than one-fourth of entitlements and mandatory spending, or about one-eighth of all federal spending, is means-tested—that is, paid to individuals who must document their need on the basis of income or assets that are below certain specified thresholds. In some programs, other criteria, such as family status, are also used. The remainder of mandatory spending has no such restrictions and is labeled non-means-tested.

Means-Tested Programs

Since the 1960s, spending on means-tested benefits has more than tripled as a share of the economy, growing from 0.8 percent of GDP in 1962 to a high of 2.6 percent in 1995. Since 1995, means-tested outlays have declined slightly as a share of GDP; however, that trend is not expected to continue. Several factors drive changes in spending for these programs, including inflation, increases in health care costs, fluctuating unemployment, growth of the eligible populations, and new legislation. Largely because growth in the Medicaid program is expected to accelerate, CBO projects that spending for means-tested programs will grow a bit more rapidly than the economy over the next several years and reach 2.9 percent of GDP by 2010.

Medicaid. Medicaid, the joint federal/state program that provides medical care to many of the nation's poor people, makes up nearly half of all spending for means-tested entitlements. Over the next decade, it is projected to grow more rapidly than other means-tested programs: its federal outlays will mount from \$108 billion in 1999 to \$264 billion in 2010, an average annual growth rate of 8.5 percent (see Table 4-6).

6. On January 3, 2000, the pay-as-you-go balances were reset to zero, as directed by the Consolidated Appropriations Act (Public Law 106-113).

Table 4-6.**CBO Projections of Mandatory Spending, Including Deposit Insurance (By fiscal year, in billions of dollars)**

	Actual 1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Means-Tested Programs												
Medicaid	108	115	125	135	146	159	173	188	205	223	243	264
State Children's Health Insurance	1	2	3	3	3	4	4	4	4	4	4	5
Food Stamps	19	19	20	20	21	22	22	23	24	25	26	26
Family Support ^a	20	21	22	23	23	24	25	25	26	26	27	28
Supplemental Security Income	28	29	31	33	34	36	41	40	39	45	47	49
Veterans' Pensions	3	3	3	3	4	4	4	4	3	4	4	4
Child Nutrition	9	9	10	10	11	11	11	11	12	12	13	14
Earned Income and Child Tax Credits	26	26	26	27	27	28	28	29	29	30	30	31
Student Loans	3	5	5	6	5	5	5	5	5	5	5	5
Foster Care	<u>5</u>	<u>5</u>	<u>6</u>	<u>6</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>8</u>	<u>9</u>	<u>10</u>	<u>10</u>	<u>11</u>
Total	221	235	250	265	281	298	321	338	356	383	409	437
Non-Means-Tested Programs												
Social Security	387	402	419	439	460	482	506	531	558	587	620	656
Medicare	<u>209</u>	<u>218</u>	<u>237</u>	<u>245</u>	<u>265</u>	<u>284</u>	<u>311</u>	<u>321</u>	<u>350</u>	<u>375</u>	<u>404</u>	<u>434</u>
Subtotal	596	620	657	684	725	766	817	852	908	962	1,023	1,090
Other Retirement and Disability												
Federal civilian ^b	48	50	52	55	57	60	63	65	68	71	74	77
Military	32	33	34	35	35	36	38	39	40	41	42	43
Other	<u>5</u>	<u>5</u>	<u>5</u>	<u>5</u>	<u>5</u>	<u>5</u>	<u>5</u>	<u>5</u>	<u>5</u>	<u>5</u>	<u>5</u>	<u>5</u>
Subtotal	85	88	91	94	98	101	105	109	113	117	121	125
Unemployment Compensation	21	22	23	24	26	28	29	31	32	34	35	36
Deposit Insurance	-5	-2	*	*	1	1	2	1	-1	-1	*	*
Other Programs												
Veterans' benefits ^c	22	22	23	24	26	26	28	27	26	28	29	29
Farm price and income supports	18	23	12	11	10	9	7	6	5	5	5	5
Social services	5	4	5	5	5	5	5	5	5	5	5	5
Credit liquidating accounts	-8	-9	-8	-7	-7	-8	-8	-8	-7	-7	-8	-7
Universal Service Fund	3	4	5	5	6	11	12	12	12	12	12	12
Other	<u>20</u>	<u>13</u>	<u>13</u>	<u>12</u>	<u>13</u>	<u>12</u>	<u>11</u>	<u>11</u>	<u>11</u>	<u>12</u>	<u>12</u>	<u>13</u>
Subtotal	59	57	51	51	51	54	56	54	52	54	56	57
Total	756	785	821	854	901	951	1,008	1,047	1,104	1,167	1,235	1,308
Total												
All Mandatory Spending	977	1,020	1,071	1,119	1,182	1,249	1,329	1,385	1,460	1,550	1,643	1,744

SOURCE: Congressional Budget Office.

NOTES: Spending for the benefit programs shown above generally excludes administrative costs, which are discretionary. Spending for Medicare also excludes premiums, which are considered offsetting receipts.

* = less than \$500 million.

- a. Includes Temporary Assistance for Needy Families, Family Support, Child Care Entitlements to States, and Children's Research and Technical Assistance.
- b. Includes Civil Service, Foreign Service, Coast Guard, and other retirement programs and annuitants' health benefits.
- c. Includes veterans' compensation, readjustment benefits, life insurance, and housing programs.

Spending for acute care services, which includes payments to managed care plans, accounts for over half of Medicaid outlays. CBO projects that acute care spending will rise from \$57 billion in 1999 to \$153 billion in 2010. Spending for long-term care, which accounts for one-third of all Medicaid spending, is expected to climb from \$36 billion in 1999 to \$87 billion in 2010. Administrative expenses are expected to remain at 5 percent of total Medicaid spending, rising from \$6 billion in 1999 to \$14 billion by 2010. Growth in payments to hospitals that serve a disproportionate share of Medicaid beneficiaries or other low-income people—so-called disproportionate share hospital (DSH) payments—is limited by statute. As a result, CBO projects flat spending in that category over the next decade, with outlays growing only from \$9 billion to \$10 billion.

The Medicaid program's expenditures in fiscal year 1999 were consistent with expectations of renewed growth. After historically low increases—between 3 percent and 4 percent a year in 1996 and 1997—outlays spurted ahead by almost 6 percent in 1998 and by about 6.5 percent in 1999. That renewal of a pattern of growth was in part the result of higher spending for relatively more costly services such as pharmaceutical products and noninstitutional long-term care (for example, home health care.) Another factor pushing up spending was that states expanded eligibility for the program and began again to serve some adults and children who had lost Medicaid coverage as a result of welfare reform.

CBO anticipates that the rate of growth of Medicaid spending will continue to rise over the next several years. Spending growth is unlikely to reach the double-digit rates of the early 1990s but could hit 6.9 percent in 2000, 7.8 percent in 2001, and more than 8 percent a year thereafter.

In the short term, CBO expects several factors to fuel its estimates of accelerated growth. First, many states are expanding Medicaid enrollment under waivers granted by the Health Care Financing Administration that allow more people to enroll in the program. Some of those waivers target populations with higher-than-average health costs, which could lead to higher levels of program spending. Second, CBO expects an increase in the enrollment of children who are found to be eligible for Medicaid as a result of outreach efforts

associated with the State Children's Health Insurance Program. Third, administrative expenses are expected to rise rapidly as states spend more on enrolling people who had lost coverage under welfare reform and on other program management functions. Finally, a modest slowdown in the growth of enrollment in Medicaid managed care plans is likely to reduce the savings projected from moving enrollees into those plans.

In the longer term, CBO expects that several factors will combine to push Medicaid's growth rate to more than 8 percent a year. Enrollees' increased use of noninstitutional long-term care services and of pharmaceuticals is expected to push up Medicaid spending. However, actions by the states appear to dominate the reasons behind the renewed growth. As a result of the strong economy and new revenues from settlements with the tobacco industry, states are likely to increase the reimbursement rates they pay to some health care providers and to continue, modestly, to expand the program. A further factor that may drive new spending is continued efforts by states to exercise more of their options for receiving funds under the current law by converting programs that they now fund alone to programs that qualify for federal matching payments. In addition, states may seek to provide supplemental payments and rate enhancements to some hospitals to make up for DSH restrictions. States are also likely to increase the number of disabled people receiving long-term care at home or in the community to address concerns related to compliance with the Americans with Disabilities Act.

States will also face pressure to increase the rates they pay to managed care plans as a way to keep those plans in the Medicaid market. That pressure could push states to raise such rates closer to the federal ceilings that may apply to them or find ways to support the plans through other means—which would diminish the savings that had been anticipated from greater use of managed care. States are also expected to expand Medicaid eligibility for pregnant women and other adults, which will contribute to continued program growth and spending.

Other Means-Tested Programs. Outlays for other means-tested programs are generally projected to grow more slowly than those for Medicaid. Food Stamp outlays are expected to increase slightly from the 1999 level to \$20 billion in 2001 and then continue to grow

moderately, reaching \$26 billion by 2009 (see Table 4-6). Spending for family support programs, which include Temporary Assistance for Needy Families (TANF), rebounded from an unexpectedly low level of \$18 billion in 1998 to reach \$20 billion in 1999. CBO expects TANF and other such spending to rise gradually to \$28 billion by 2010. The boost CBO has estimated for that spending arises from increases in the levels of cash benefits and higher spending by states on work, training, and child care programs. (Such programs are allowed under TANF, but states have not always exercised their option of obtaining federal dollars to support them.) Also contributing to the increase in spending is funding for programs that have not previously been supported by the welfare system, such as transportation, pregnancy prevention activities, or substance abuse counseling.

Payments of Supplemental Security Income (SSI) benefits are estimated to grow from \$28 billion in 1999 to \$49 billion in 2010. Roughly half of that growth results from cost-of-living adjustments to benefits. Most of the rest stems from the growth in and changing composition of SSI caseloads. SSI benefits are paid to three groups: disabled adults, elderly adults, and disabled children. CBO estimates that caseloads will grow from 6.4 million in 2000 to 7.7 million in 2010. Disabled adults and children will constitute most of the new cases. The third component of the caseload, elderly adults, will shrink a bit. The average SSI benefit differs significantly for each group, with higher payment rates for the disabled than for elderly people. Thus, SSI benefits will grow not only because there are more recipients but also because of the larger proportion of disabled children and adults—who tend to get higher benefits—in the case mix.

Outlays from refundable tax credits—the earned income tax credit (EITC) and the child tax credit—are expected to grow slowly from \$26 billion in 2000 to \$31 billion in 2010. The earned income tax credit accounts for about 98 percent of spending in this category and is growing only slowly. The credit's growth is slowed by the lack of adjustment for real income growth in the income thresholds at which the credit phases out. (However, both the credit and income thresholds are adjusted for inflation.) When real incomes rise, more of the credit is phased out. Two programs that primarily affect children are also projected

to grow over the next decade. The State Children's Health Insurance Program is estimated to increase from about \$2 billion in 2000 to \$5 billion in 2010, and Foster Care is expected to climb from \$5 billion to \$11 billion.

One set of programs that is not easily characterized as means-tested or non-means-tested is student loans. CBO includes those programs in the means-tested category because historically, the majority of loans have had interest subsidies and been limited to students from families with relatively low income and financial assets. In recent years, however, the fastest-growing category of loans is the one to which no means-testing is applied. In 2000, student loan programs expect to disburse about \$32 billion in loans guaranteed or directly provided by the federal government. Over the 2000-2010 period, total expected disbursements top \$400 billion. Of that total, the percentage of loan volume that is non-means-tested is projected to increase from 48 percent in 2000 to 54 percent in 2010. (Box 4-1 discusses changes in CBO's treatment of the Federal Student Loan Reserve Fund.)

Despite the magnitude of the funds involved, the costs included in the federal budget for student loans reflect only a small portion of the disbursements. Under the Credit Reform Act, only the subsidy costs of the loans are treated as outlays. Those outlays are estimated as the future costs in today's dollars for in-school interest subsidies, default costs, and other expected costs over the life of the loans. CBO estimates that those subsidy costs will range from \$5 billion to \$6 billion a year through 2010.

Non-Means-Tested Programs

Social Security, Medicare, and other retirement and disability programs dominate non-means-tested entitlements. Social Security is by far the largest federal program, with expected outlays of \$402 billion in 2000. It pays benefits to almost 45 million people—a number that is projected to increase to over 54 million by 2010. Most Social Security beneficiaries also participate in Medicare, which is expected to cost \$218 billion in 2000. Together, those two programs account for more than one out of every three dollars that

the federal government spends (up from about one in four dollars in 1980). CBO projects that annual spending for the two programs combined will grow by nearly \$500 billion by 2010—even before the surge in beneficiaries that is expected to begin shortly thereafter as increasing numbers of baby boomers retire.

Social Security. During the past decade, Social Security grew by an average of 5.3 percent a year. Over the next decade, CBO projects a rate of growth averaging 5 percent a year. Yet despite that decrease, the share of the economy devoted to Social Security will remain fairly constant—rising from 4.2 percent of

Box 4-1.

Federal Student Loan Reserve Fund

After consulting with the House and Senate budget committees, the Congressional Budget Office (CBO) now incorporates in its baseline the operations of the Federal Student Loan Reserve Fund. The fund was established to hold the accumulated cash reserves of the guaranty agencies in the government's student loan programs. When the Congress created the guaranteed student loan program in 1965, the federal government directly insured the loans that private lenders made to students. In the 1970s, lawmakers amended the Higher Education Act (HEA) to make national and state guaranty agencies the initial insurers and to require the federal government to provide reinsurance. Guaranty agencies operate as an intermediary between the federal government and student loan lenders, insuring the loans against default and making sure that students and schools meet program requirements. After assuming defaulted loans, the agencies contact borrowers to establish repayment schedules and collections.

The Higher Education Amendments of 1998 (Public Law 105-244) restructured the reserve fund for the guaranty agencies and established two distinct types of accounts. For each agency, there would be a fund that it owned and another that was owned solely by the federal government. In creating separate accounts for the reserves that the agencies hold, the Congress was attempting to settle long-standing disputes between the guaranty agencies and the federal government over who actually owns the reserves.

The law requires guaranty agencies to hold as much money in reserve funds as is necessary to fulfill the responsibilities mandated for the agencies under the HEA. When the separate agency accounts were set up within the Federal Student Loan Reserve Fund in fiscal year 1999, total reserves deposited in the fund exceeded \$2 billion. Those reserves had accumulated because the guaranty agencies' income had grown faster than their expenditures, resulting in re-

serves that often exceeded the minimum levels required by law. (Income to the agencies comprises primarily federal payments for administrative costs and reimbursement of default claims, collections on defaulted loans, premiums on loans serviced by the agencies, and returns on investments. Expenditures are mainly insurance payments to lenders and the costs of servicing and collecting defaulted loans.)

The issue of whether the federal government or the agencies owned the reserves first arose with the Omnibus Budget Reconciliation Act of 1987, which recalled \$110 million of the reserves to the Treasury. (In the budget, the recalls were treated as offsetting receipts and shown as reducing the deficit.) A number of guaranty agencies sued the federal government to prevent the recall, and the subsequent judicial rulings on the question were mixed: some rulings upheld the government's right to recall the funds, and others asserted that the reserves were the property of the agencies. Legislation enacted in 1992 attempted to settle the matter by stating clearly that the reserves were to be considered the property of the United States. Although the logical outcome to that legislation would have been to include the income and outgo of the guaranty agencies as part of the federal budget, the President's budget has never incorporated that treatment of the fund.

Including the operations of the reserve fund in CBO's baseline has a relatively minor impact (less than \$100 million annually) on the federal budget surplus—except in 2002. For that year, the Balanced Budget Act of 1997 recalled \$1 billion of the reserves, and the reauthorization of the HEA in 1998 enacted other recalls totaling \$250 million over the 1999-2007 period. Establishing the Federal Student Loan Reserve Fund as an on-budget account would make those recalls intragovernmental transactions in which the payments from the fund would offset the additional receipts to the Treasury.

GDP in 2000 to 4.4 percent in 2010. CBO estimates that by 2010, spending for Social Security will total \$656 billion.

The Social Security program for Old-Age and Survivors Insurance (OASI) will pay about \$337 billion in benefits in 2000. Benefits for that program are relatively easier to project, in the near term, than those for other non-means-tested programs because the forces that drive OASI costs are quite predictable. More than 90 percent of people over age 65, and more than half of those ages 62 to 64, collect Social Security benefits on the basis of their past earnings (or the earnings of a spouse). Therefore, CBO bases its projections of OASI benefits chiefly on estimates of the size of the elderly population and on the assumption that the average benefit will continue to grow at a rate slightly higher than that of inflation.

The other component of Social Security, the Disability Insurance program, will pay about \$50 billion in benefits in 2000 to disabled workers between the ages of 18 and 65 and their dependents. Projections of those costs are more uncertain because that program's growth will depend on how many people suffer from serious medical impairments that lead them to seek disability benefits. Some evidence suggests that tight labor markets—a characteristic of the nation's currently strong economy—may hold down applications for the program, but the full extent of such an effect over the projection period cannot be foreseen. Thus, in the short run, inaccuracies in projections of Social Security spending are most likely to stem from misestimates of the number of disabled beneficiaries or of the cost-of-living adjustments made to all Social Security benefits each year, which depend on economic conditions.

Medicare. Although Medicare spending is not as large as Social Security spending, it is still substantial. By 2010, CBO projects, spending for Medicare will total more than \$430 billion, and Medicare's share of the economy will have risen by 25 percent, or more than one-half of a percentage point, from 2.3 percent of GDP in 2000 to 2.9 percent.

Historically, more than 99 percent of Medicare's mandatory spending has gone to pay for benefits. The rate of growth in total benefits has varied greatly, and that variation is likely to continue. The program's out-

lays increased by an average of 11.1 percent a year from 1990 to 1995. Since then, however, the rate of spending growth has slowed each year, declining from a high of 8 percent in 1996 to 1.5 percent in 1998. In 1999, Medicare spending did not grow at all but instead declined by 1 percent.

The fall in spending in 1999 stems from several factors. First, it reflects a continuation in two trends that began in the mid-1990s: a slowing of growth in enrollment and the effect of antifraud initiatives on compliance with the program's rules for payment. The drop also reflects changes in payment rates and other program rules required by the Balanced Budget Act. The trend toward lower spending led CBO in March 1999 to project only a 0.8 percent increase in Medicare spending in 1999. The difference of 1.8 percentage points between that estimate and the 1 percent spending drop that actually occurred appears to be primarily the result of a larger-than-anticipated reduction in the use of home health services.

The lull in the rise of Medicare spending is likely to be a short one. CBO projects that spending growth will resume in the next few years and average about 7 percent over the coming decade—substantially below the double-digit growth experienced in the first half of the 1990s. Growth is estimated to average 6.8 percent a year through 2003, when most of the changes required by the BBA will be complete. During the 2004-2010 period, however, growth accelerates to an average annual rate of 7.3 percent.

About 65 percent of Medicare's projected growth over the next 10 years will result from increased enrollment and automatic updates to payment rates (statutory increases to account for inflation). The remaining 35 percent is expected to come from other program changes required by the BBA and the Balanced Budget Refinement Act and by changes in such factors as medical technology, practice patterns, billing behavior, and the age distribution of enrollees.

CBO's projections show that the number of enrollees in Medicare's Hospital Insurance (Part A) program will swell by 17 percent, from 39 million to 46 million, between 2000 and 2010. Growth in enrollment will accelerate in the second half of the decade, rising from 1.1 percent in 2000 to 2.0 percent in 2010.

Payment rates for most services in the fee-for-service sector (including hospital inpatient care and services furnished by physicians, home health agencies, and skilled nursing facilities) are subject to automatic updates based on changes in the prices of inputs to rates in those settings. Through 2002, the BBA restricted many of those updates to less than the rate of increase in input prices. Thus, CBO estimates that annual updates will average about 2.5 percent through 2002 but will increase to about 3.1 percent in 2003 through 2010.

Over the years, Medicare spending has grown at a rate 3 to 4 percentage points higher than would result simply from increases in enrollment and updates to payment rates. Other factors also play a role, and the rate of growth attributable to them (some of which were mentioned above) varies considerably. Implementation of the Balanced Budget Act provisions (other than restricted updates) and changes in practice patterns and billing behavior associated with antifraud efforts are expected to hold that rate to about 2.6 percent a year—substantially below the historical average—through 2003. After 2003, CBO projects that spending growth resulting from those other factors will drop slightly, to an average annual rate of about 2.4 percent. That rate is projected to remain below the historical average for such growth for two main reasons: improved compliance with Medicare billing rules and an increase in the proportion of Medicare enrollees who are relatively young and therefore less costly.

Other Non-Means-Tested Programs. Other federal retirement and disability programs, totaling \$88 billion in 2000, are less than one-fourth the size of Social Security. They are dominated by benefits for the federal government's civilian and military retirees and the Railroad Retirement program. Those programs are expected to grow faster than inflation. For the Military Retirement System, CBO projects that a growing number of retirees or other beneficiaries will account for such growth. In the Civilian Retirement System, a rate of growth that exceeds that for inflation stems primarily from growth in real benefits and, to a lesser extent, a rise in the number of retirees. Benefits for federal civilian retirees are based on average salaries and length of service. Real growth in benefits is the result of average employee salaries that rise faster than inflation and projected growth in length of service

under the Federal Employees Retirement System (FERS). Current retirees under the relatively new FERS program have only about 12 years of service. As the system "ages," retirees will have longer periods of service, and as a result, their benefit levels will grow. The number of participants in the older Civil Service Retirement System is static, and thus no increases in spending are projected for that component.

Spending for unemployment compensation has declined from the crests reached in the early 1990s. Outlays for unemployment compensation peaked at \$37 billion in 1992, but low unemployment stemming from the growing economy has brought them down to nearly half that amount. As the economy's projected rate of growth slows and the unemployment rate rises, CBO estimates that spending for unemployment compensation will creep up.

The balance of spending for non-means-tested programs funds a diverse set of activities—mainly veterans' benefits, farm price and income supports, certain social service grants to the states, and the Universal Service Fund. CBO projects that net spending for those programs will total \$57 billion in 2000 (down from \$59 billion the year before) and that it will fluctuate somewhat over the projection period before ending the decade again at \$57 billion. The estimated drop over the next 10 years in spending for farm price and income supports is balanced by continuing increases in outlays for veterans' benefits, which grow at roughly the same rate as inflation, and for the Universal Service Fund.

Spending for farm price and income supports surged from \$9 billion in 1998 to \$18 billion in 1999. In 2000, CBO estimates that such spending will reach \$23 billion, fueled by \$8 billion in emergency appropriations added to the normal payments for farm programs. Because those add-ons are not part of the ongoing mandatory program, CBO does not project them in future years, although the conditions that led to the need for such funding are likely to persist for some time.

The soaring outlays in spending for farm supports derive from low prices for major crops, which triggered loan deficiency payments and marketing loan costs (ways of assisting farmers during periods of low market prices) that were not expected under the Fed-

eral Agricultural Improvement and Reform Act of 1996. Prices for many agricultural commodities covered under the price support program declined to levels that were at least as low as in the 1980s and early 1990s, the result of consecutive years of plentiful crops combined with weak global demand. Demand for U.S. agricultural products is expected to improve, although CBO projects that large supplies will continue to hold down farm prices for several years. CBO's projected spending on farm price and income supports declines to about \$5 billion annually by 2007.

Why Does Mandatory Spending Increase?

As a whole, spending for entitlements and other mandatory programs has doubled since 1985—rising faster than both nominal growth in the economy and the rate of inflation. CBO expects that growth trend to continue under current law.

Why does mandatory spending grow so fast? One convenient way to analyze that growth is to break it down by its major sources. Such a breakdown shows that rising caseloads, automatic increases in benefits, and greater use of medical services will account for more than 85 percent of the growth in entitlements and other mandatory programs between 2000 and 2010.

Mounting caseloads produce almost one-quarter of the category's total growth. Compared with outlays in 2000, larger caseloads will increase spending by \$12 billion in 2001 and \$172 billion in 2010 (see Table 4-7). The majority of that spending is concentrated in Social Security and Medicare and is traceable to continued expansion of the elderly and disabled populations. Much of the rest is in Medicaid. The growth of caseloads alone will boost outlays in each of those programs by between 18 percent and 22 percent during the 2001-2010 period.

Automatic increases in benefits account for more than one-third of the growth in entitlement spending. All of the major retirement programs grant automatic cost-of-living adjustments (COLAs) to their beneficiaries. CBO expects those adjustments, which are

pegged to the consumer price index, to be 2.5 percent in 2000 and remain at that level thereafter. In 2000, total outlays for programs with COLAs total more than \$535 billion. COLAs are projected to add an extra \$10 billion to that amount in 2001 and \$153 billion in 2010.

Several other programs—chiefly the earned income tax credit, Food Stamps, and Medicare—are also automatically indexed to changes in prices. As noted earlier, the income thresholds above which the EITC begins to be phased out and the maximum amount of the credit are automatically adjusted for inflation using the consumer price index (the credit is administered through the individual income tax, but credits in excess of tax liabilities are recorded as outlays in the budget). The Food Stamp program makes annual adjustments to its benefit payments according to changes in the Department of Agriculture's Thrifty Food Plan index. Medicare's payments to providers are based in part on special price indexes for the medical sector. The combined effect of indexing for all of those programs is an extra \$8 billion in outlays in 2001 and \$103 billion in 2010.

The remaining 40 percent of the boost in entitlement spending comes from increases that cannot be attributed to rising caseloads or automatic adjustments to benefits. Two of those sources of growth are expected to become even more important over time. First, Medicaid spending grows with inflation even though it is not formally indexed at the federal level. Medicaid payments to providers are determined by the states, and the federal government matches those payments, according to a formula set by law. If states increase their benefits to account for inflation, federal payments will rise correspondingly. Second, the health programs have faced steadily escalating costs per participant beyond the effects of inflation; that trend, which is often termed an increase in "intensity," reflects the consumption of more health services per participant and the growing use of more costly procedures. The residual growth in Medicare and Medicaid from both of those sources amounts to \$12 billion in 2001 and \$214 billion in 2010.

In most retirement programs, the average benefit grows faster than the COLA alone. Social Security is a prime example. Because new retirees have recent earnings that were bolstered by real wage growth,

their benefits generally exceed the monthly check of a long-time retiree who last earned a salary a decade or two ago and has been receiving only cost-of-living adjustments since then. And because more women are working today, more new retirees receive benefits based on their own earnings rather than a smaller, spouse's benefit. In Social Security alone, CBO estimates that such phenomena will add \$7 billion in outlays in 2001 and \$69 billion in 2010.

Irregular numbers of benefit payments for some programs will affect mandatory spending in 2001, 2002, and 2005 through 2007. Normally, benefits are

paid on the first day of each month. However, when October 1 (the beginning of the government's fiscal year) falls on a weekend, Supplemental Security Income and veterans' benefit programs shift the October payment back to the previous Friday. As a result, benefits from those programs will be paid 13 times in 2005, 12 times in 2006, and 11 times in 2007. The Medicare program as well has usually shifted its payments to health maintenance organizations, but because the Balanced Budget Act specifically moved certain payment dates, Medicare will make 13 such payments in 2001 and 2005 and 11 payments in 2002 and 2006.

Table 4-7.
Sources of Growth in Mandatory Spending (By fiscal year, in billions of dollars)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Estimated Mandatory Spending for 2000	1,020	1,020	1,020	1,020	1,020	1,020	1,020	1,020	1,020	1,020
Sources of Growth										
Increases in caseloads	12	25	38	53	69	86	104	125	148	172
Automatic increases in benefits										
Cost-of-living adjustments	10	24	39	54	70	85	100	118	136	153
Other ^a	8	16	26	36	46	57	68	79	91	103
Other increases in benefits										
Increases in Medicare and Medicaid ^b	12	26	42	61	82	104	127	153	182	214
Growth in Social Security ^c	7	9	14	19	24	31	38	47	57	69
Irregular number of benefit payments ^d	4	-4	0	0	11	-5	-5	0	0	0
Change in outlays for deposit insurance	2	2	2	3	3	3	1	1	1	1
Other sources of growth	-3	-1	1	4	3	4	6	7	9	11
Total Growth	51	99	162	229	309	365	440	530	623	724
Projected Mandatory Spending	1,071	1,119	1,182	1,249	1,329	1,385	1,460	1,550	1,643	1,744

SOURCE: Congressional Budget Office.

- a. Automatic increases in Food Stamp and child nutrition benefits, certain Medicare reimbursement rates, and the earned income tax credit under formulas specified by law.
- b. All growth not attributed to caseloads and automatic increases in reimbursement rates.
- c. All growth not attributed to caseloads and cost-of-living adjustments.
- d. Represents baseline differences attributable to assumptions about the number of benefit checks that will be issued in a fiscal year. Normally, benefit payments are made on the first day of each month. However, Supplemental Security Income and veterans' benefits will be paid 13 times in 2005, 12 times in 2006, and 11 times in 2007 because October payments are made in September when October 1 (the beginning of the government's fiscal year) falls on a weekend. Medicare usually follows that same pattern, but the Balanced Budget Act of 1997 specifically moved certain payment dates. Thus, Medicare will make 13 monthly payments to health maintenance organizations in 2001 and 2005 and 11 payments in 2002 and 2006.

Most of the remaining growth in spending for benefit programs derives from the following sources: rising benefits for new retirees in the Civil Service and Military Retirement programs (fundamentally the same phenomenon as in Social Security); larger average benefits in unemployment compensation (a program that lacks an explicit COLA but pays amounts that are generally linked to the recent earnings of its beneficiaries); a reduction in net income to bank and thrift insurance funds; and other sources. All of those remaining factors together, however, contribute just \$11 billion of the total \$724 billion increase in mandatory spending in 2010.

Legislation Assumed in the Baseline

The general baseline concept for mandatory spending is to project budget authority and outlays in accordance with current law. However, in the case of programs with outlays of more than \$50 million in the current year, the Deficit Control Act directs CBO to assume that the programs continue when their authorization expires. The bulk of projected spending associated with such programs occurs after 2002, when the current authorizations for the Food Stamp and TANF programs expire (see Table 4-8). In addition, the act directs CBO to assume that cost-of-living adjustments for veterans' compensation are granted each year.

Offsetting Receipts

Offsetting receipts are income that the government records as negative spending. Those receipts are either intragovernmental (reflecting payments from one part of the federal government to another) or proprietary (reflecting payments from the public in exchange for goods or services).

A decision to collect more (or less) money in the form of offsetting receipts usually requires a change in the laws that generate such collections. Thus, offsetting receipts may resemble mandatory spending and revenues—which are also subject to pay-as-you-go discipline—rather than discretionary appropriations. Receipts that are generated by language contained in appropriation acts (or triggered by such acts) and are

credited to program spending accounts are called offsetting collections. In those cases, the collections will offset discretionary spending.

Intragovernmental transfers representing the contributions that federal agencies make to their employees' retirement plans account for more than 45 percent of offsetting receipts—a share that is expected to remain relatively constant through 2010 (see Table 4-9). Agency contributions are paid primarily to the trust funds for Social Security, Hospital Insurance, Military Retirement, and Civil Service Retirement. Some contribution rates are set by statute; others are determined by actuaries. The contributions that agencies must make for their employees are charged against their budgets, as are other elements of their employee compensation. Future retirement benefits are an important part of the compensation package for the government's 4.2 million civilian, military, and postal workers. The budget treats those contributions as outlays and handles the deposits made in retirement funds as offsetting receipts. The transfers thus wash out in the budgetary totals, leaving only the funds' disbursements—for retirement benefits and administrative costs—reflected in total outlays.

The largest proprietary receipt that the government collects comprises premiums from the 37 million people enrolled in Supplementary Medical Insurance (SMI, or Part B of Medicare), which primarily covers physicians' and outpatient hospital services. Premiums in the program are set to cover one-quarter of its costs. The monthly charge for SMI beneficiaries is \$45.50 in 2000; it is projected to climb to \$94.60 in 2010.

All enrollees in Part B of Medicare pay a monthly premium. In the case of Part A, the Hospital Insurance program, most beneficiaries are considered to be entitled to those benefits and are not charged a premium. However, Medicare collects Part A premiums for about 360,000 enrollees who did not participate in employment covered by Medicare payroll taxes for a sufficient amount of time to be entitled to free enrollment. CBO estimates that collections of premiums for both parts of Medicare will increase from \$22 billion in 2000 to \$51 billion in 2010; the great bulk (95 percent) of the increase in those collections is associated with enrollees' payments of the regular monthly SMI premium. The federal government, how-

Table 4-8.
Program Continuations Assumed in the CBO Baseline (By fiscal year, in billions of dollars)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Commodity Credit Corporation Fund^a										
Budget authority	n.a.	n.a.	9.4	8.5	7.0	5.9	5.1	4.8	4.8	4.8
Outlays	n.a.	n.a.	9.4	8.5	7.0	5.9	5.1	4.8	4.8	4.8
Ground Transportation Programs Controlled by Obligation Limitations^b										
Budget authority	n.a.	n.a.	n.a.	36.9	36.9	36.9	36.9	36.9	36.9	36.9
Outlays	n.a.	n.a.	n.a.	0	0	0	0	0	0	0
Ground Transportation Programs Not Subject to Obligation Limitations										
Budget authority	n.a.	n.a.	n.a.	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Outlays	n.a.	n.a.	n.a.	0.1	0.3	0.5	0.5	0.6	0.6	0.6
Family Preservation and Support										
Budget authority	n.a.	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Outlays	n.a.	0.1	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Rehabilitation Services and Disability Research										
Budget authority	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	2.8	2.8	2.9	3.0
Outlays	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1.9	2.7	2.9	3.0
Federal Unemployment Benefits and Allowances										
Budget authority	n.a.	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4
Outlays	n.a.	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4
Food Stamps										
Budget authority	n.a.	n.a.	21.0	21.8	22.5	23.2	24.0	24.7	25.6	26.4
Outlays	n.a.	n.a.	20.3	21.7	22.4	23.2	23.9	24.7	25.5	26.3
Child Nutrition^c										
Budget authority	n.a.	n.a.	n.a.	0.5	0.5	0.5	0.6	0.6	0.6	0.6
Outlays	n.a.	n.a.	n.a.	0.4	0.5	0.5	0.6	0.6	0.6	0.6
Child Care Entitlements to States										
Budget authority	n.a.	n.a.	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
Outlays	n.a.	n.a.	2.2	2.7	2.7	2.7	2.7	2.7	2.7	2.7
Temporary Assistance for Needy Families										
Budget authority	n.a.	n.a.	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8
Outlays	n.a.	n.a.	16.8	17.3	17.7	18.1	18.5	18.8	19.1	19.4
Veterans' Compensation COLAs										
Budget authority	0.4	0.9	1.5	2.0	2.8	3.1	3.4	4.3	4.9	5.5
Outlays	0.3	0.9	1.4	2.0	2.7	3.1	3.4	4.2	4.8	5.5
Total										
Budget authority	0.4	1.5	52.1	90.5	90.6	90.5	93.6	95.1	96.6	98.1
Outlays	0.3	1.1	50.6	53.3	54.0	54.6	57.3	59.8	61.7	63.6

SOURCE: Congressional Budget Office.

NOTE: n.a. = not applicable; COLAs = cost-of-living adjustments.

- Agricultural commodity price and income supports under the Federal Agriculture Improvement and Reform Act of 1996 (FAIR) generally expire after 2002. Although permanent price support authority under the Agricultural Adjustment Act of 1939 and the Agricultural Act of 1949 would then become effective, section 257(b)(2)(iii) of the Deficit Control Act provides that the baseline must assume continuation of the FAIR provisions.
- Authorizing legislation provides contract authority, which is counted as mandatory budget authority. However, because spending is subject to obligation limitations specified in annual appropriation acts, outlays are considered discretionary.
- The expiring child nutrition programs encompass the Summer Food Service Program and state administrative expenses.

Table 4-9.
CBO Projections of Offsetting Receipts (By fiscal year, in billions of dollars)

	Actual 1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Federal Employers' Share of Employee Retirement												
Social Security	-7	-8	-8	-9	-9	-10	-11	-12	-12	-13	-14	-15
Military Retirement	-10	-11	-12	-12	-12	-13	-13	-14	-14	-14	-15	-15
Civil Service Retirement and other	-18	-18	-19	-20	-20	-21	-22	-22	-23	-24	-25	-26
Subtotal	-36	-37	-39	-41	-42	-44	-46	-48	-50	-52	-54	-56
Medicare Premiums	-22	-22	-23	-25	-28	-31	-34	-37	-40	-43	-47	-51
Energy-Related Receipts ^a	-4	-5	-5	-5	-5	-5	-5	-4	-5	-5	-4	-4
Natural Resource-Related Receipts ^b	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3
Electromagnetic Spectrum Auctions	-2	-1	-4	-6	-5	-1	-1	-1	-1	*	0	0
Other ^c	-12	-10	-10	-11	-11	-9	-9	-9	-10	-10	-10	-10
Total	-78	-79	-85	-91	-94	-93	-98	-103	-108	-113	-119	-125

SOURCE: Congressional Budget Office.

NOTE: * = less than \$500 million.

- a. Includes proceeds from the sale of power, nuclear waste disposal and various other fees, and Outer Continental Shelf receipts.
- b. Includes timber and mineral receipts and various fees.
- c. Includes asset sales.

ever, also pays a substantial share of those premiums, because Medicaid pays the Part B premium (and, if necessary, the Part A premium) for Medicare enrollees who are eligible for Medicaid. Thus, CBO projects that collections of premiums from nonfederal sources will increase from \$19 billion in 2000 to \$45 billion in 2010.

Other proprietary receipts come mostly from royalties and charges for oil and natural gas, electricity, minerals, and timber and from a variety of fees levied on users of government property and services. Auctions by the Federal Communications Commission of rights to use parts of the electromagnetic spectrum are assumed to continue until 2007, when the authority to conduct them expires. CBO estimates that those auctions will bring in \$1 billion in 2000, from \$4 billion

to \$6 billion each year from 2001 to 2003, and smaller amounts in subsequent years (see Appendix B).

Net Interest

Interest costs are currently a sizable portion of the federal budget, representing more than 13 percent of government outlays in 1999. But under CBO's base-line projections of rapidly rising surpluses for 2000 through 2010, outstanding government debt declines sharply over the period. Therefore, despite a projected increase in interest rates in the near term, annual interest payments on the debt over the period quickly plummet from their 1999 level of \$230 billion.

The path of interest costs depends on the size and composition of federal debt. Some of the debt securities that are currently outstanding, such as long-term bonds, will not be available for redemption over the next 10 years (see the discussion in Chapter 1). Therefore, in any given year, a minimum amount of debt will remain outstanding and incur interest costs, regardless of the size of the surplus. Each of the three baselines reaches the minimum level of debt in a different year. However, once the minimum is reached, the baseline accounts for any excess cash from the surplus separately and does not consider the proceeds generated by investing that cash as part of net interest. By 2010, all three baselines will be at the minimum level of debt for the entire year and will therefore have identical net interest costs.

Although all three baselines have the same net interest costs in 2010, the path of those costs in previous years varies. The inflated baseline has the lowest surpluses and thus the highest federal debt and interest costs of the three baselines. Yet even under that measure, the minimum level of debt is reached during 2009, and net interest drops from \$230 billion in 1999 to \$68 billion in 2010 (see Table 4-10). The freeze and capped baselines also project \$68 billion for net interest in 2010, but the drop for them is quicker and the minimum level of debt is reached earlier than in the inflated baseline. As a result, relative to that baseline, total net interest costs from 2000 to 2010 are \$84 billion less under the freeze and \$142 billion less under the capped baseline. In all three, net interest as a share of total spending drops from 13 percent in 2000 to about 3 percent in 2010.

In general, interest costs are not covered by the enforcement provisions of the Deficit Control Act because they are not directly controllable. Rather, interest payments depend on the amount of outstanding government debt and on interest rates. The Congress and the President influence the former by making decisions about taxes and spending and thus about government borrowing. Beyond that, they exert no direct control over interest rates, which are determined by market forces and Federal Reserve policy.

Despite the declines projected for debt, interest rates can still have an effect on such projections, especially in the early years of the projection period when federal debt is still relatively large (see Appendix C

for more details). From 2001 to 2006, if rates were 1 percentage point higher than CBO assumes, annual net interest costs would be between \$8 billion and \$15 billion higher in any given year, no matter which baseline was used. Those extra costs stem primarily from the rollover of some maturing short- and medium-term securities. After 2006, as debt approaches or reaches its minimum level, the impact of interest rates on projections of interest costs dwindles.

Net or Gross?

Net interest is the most useful measure of what it costs the government to service its debt. However, some budget-watchers stress gross interest (and its counterpart, gross federal debt) rather than net interest (and its counterpart, debt held by the public). But that choice exaggerates the government's debt-service burden because it overlooks billions of dollars in interest income that the government now receives.

Over the years, the federal government has sold around \$3.6 trillion worth of securities to finance deficits. But it has also issued nearly \$2.0 trillion worth of securities to its own trust funds (mainly the Social Security and other retirement trust funds). Those securities represent the past surpluses of the trust funds, and their total amount grows approximately in step with the projected trust fund surpluses (see Chapter 1). The funds redeem the securities as needed to pay benefits; in the meantime, the government both pays and collects the interest on those securities. It also receives interest income from loans and short-term cash balances. Broadly speaking, gross interest encompasses all interest paid by the government (even to its own funds) and ignores all interest received. Net interest, by contrast, is the net flow to people and organizations outside the federal government (excluding any proceeds earned on excess cash).

Net interest is currently only about two-thirds as large as gross interest. CBO estimates that the government will pay \$362 billion in gross interest costs this year (see Table 4-10). Of that amount, however, \$131 billion is credited to trust funds and does not leave the government or add to the total deficit. CBO also projects that the government will collect more than \$7 billion in other interest income this year. Therefore, net interest costs will total \$224 billion.

Table 4-10.

CBO Projections of Federal Interest Outlays Under Alternative Versions of the Baseline
(By fiscal year, in billions of dollars)

	Actual 1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Discretionary Spending Grows at the Rate of Inflation After 2000												
Interest on Public Debt (Gross interest) ^a	354	362	371	375	373	370	367	364	361	357	355	362
Interest Received by Trust Funds												
Social Security	-52	-60	-70	-80	-91	-102	-113	-125	-138	-152	-167	-183
Other trust funds ^b	<u>-67</u>	<u>-71</u>	<u>-75</u>	<u>-79</u>	<u>-82</u>	<u>-84</u>	<u>-87</u>	<u>-90</u>	<u>-93</u>	<u>-97</u>	<u>-100</u>	<u>-103</u>
Subtotal	-119	-131	-144	-159	-173	-186	-200	-215	-231	-249	-267	-286
Other Interest ^c	<u>-5</u>	<u>-7</u>	<u>-8</u>	<u>-7</u>	<u>-7</u>	<u>-7</u>	<u>-7</u>	<u>-8</u>	<u>-7</u>	<u>-8</u>	<u>-8</u>	<u>-8</u>
Total (Net interest)	230	224	218	209	194	177	160	142	122	101	80	68
Discretionary Spending Is Frozen at the Level Enacted for 2000												
Interest on Public Debt (Gross interest) ^a	354	362	371	374	370	364	357	349	340	337	348	362
Interest Received by Trust Funds												
Social Security	-52	-60	-70	-80	-91	-102	-113	-125	-138	-152	-167	-183
Other trust funds ^b	<u>-67</u>	<u>-71</u>	<u>-75</u>	<u>-79</u>	<u>-82</u>	<u>-84</u>	<u>-87</u>	<u>-90</u>	<u>-93</u>	<u>-97</u>	<u>-100</u>	<u>-103</u>
Subtotal	-119	-131	-144	-159	-173	-186	-200	-215	-231	-249	-267	-286
Other Interest ^c	<u>-5</u>	<u>-7</u>	<u>-8</u>	<u>-7</u>	<u>-7</u>	<u>-7</u>	<u>-7</u>	<u>-8</u>	<u>-7</u>	<u>-8</u>	<u>-8</u>	<u>-8</u>
Total (Net interest)	230	224	218	208	191	171	150	127	101	81	72	68
Discretionary Spending Equals CBO's Estimates of the Caps Through 2002 and Grows at the Rate of Inflation Thereafter												
Interest on Public Debt (Gross interest) ^a	354	362	370	369	362	354	346	338	330	334	348	362
Interest Received by Trust Funds												
Social Security	-52	-60	-70	-80	-91	-102	-113	-125	-138	-152	-167	-183
Other trust funds ^b	<u>-67</u>	<u>-71</u>	<u>-75</u>	<u>-79</u>	<u>-82</u>	<u>-84</u>	<u>-87</u>	<u>-90</u>	<u>-93</u>	<u>-97</u>	<u>-100</u>	<u>-103</u>
Subtotal	-119	-131	-144	-159	-173	-186	-200	-215	-231	-249	-267	-286
Other Interest ^c	<u>-5</u>	<u>-7</u>	<u>-8</u>	<u>-7</u>	<u>-7</u>	<u>-7</u>	<u>-7</u>	<u>-8</u>	<u>-7</u>	<u>-8</u>	<u>-8</u>	<u>-8</u>
Total (Net interest)	230	224	217	204	183	162	139	115	92	77	72	68

SOURCE: Congressional Budget Office.

NOTE: Because proceeds from investing excess cash are not considered part of net interest, they are not shown on this table.

- a. Excludes interest costs of debt issued by agencies other than the Treasury (primarily the Tennessee Valley Authority).
- b. Principally Civil Service Retirement, Military Retirement, Medicare, unemployment insurance, and the Airport and Airway Trust Fund.
- c. Primarily interest on loans to the public.

Other Interest

The \$7 billion in other interest that CBO expects the government to receive in 2000 comprises some interest payments and some interest collections. On balance, however, the government takes in more in that category than it pays out. Among the expenditures are Treasury payments for interest on individual, corporate, and excise tax refunds that are held up for more than 45 days after the filing date (those payments total approximately \$3 billion a year). An example of other collections is the interest received from the financing accounts of credit programs, mostly for direct loans. As those programs (student loans, for instance) make more loans, they borrow money from and pay interest to the Treasury. Interest payments from such programs are expected to rise from \$7 billion in 1999 to \$15 billion in 2010, mostly because of the growth of the direct student loan program.

Proceeds from Investing Excess Cash

By 2009, all three baselines record excess cash from the surplus after all available debt is paid down. CBO makes no explicit assumption about what the Treasury might do with balances of excess cash; its projections simply assume that all cash in excess of the amounts needed to retire available debt will earn proceeds at a rate equal to the average rate projected for Treasury bills and notes.

The proceeds vary according to how much excess cash each version of the baseline generates. The inflated baseline has the smallest tally of excess cash and therefore the smallest proceeds, totaling \$19 billion between 2009 and 2010. Excess cash in the freeze baseline first appears in 2008; proceeds grow from \$9 billion in that year to \$65 billion in 2010. The capped baseline generates the largest proceeds, beginning at \$2 billion in 2007 and reaching \$70 billion by 2010.

The Uncertainties of Budget Projections

The baseline projections in Chapters 1 and 2 represent the midrange of possible outcomes for the economy and the budget, based on past and current trends and assuming that current policies are not changed. But considerable uncertainty surrounds those projections for two reasons. First, the U.S. economy and the federal budget are highly complex and are affected by many economic and technical factors that are difficult to predict. Second, future legislation is likely to alter the paths of federal spending and revenues. As a result, actual budgetary outcomes will almost certainly differ from the Congressional Budget Office's baseline projections.

This chapter describes how the assumptions about economic and technical factors that CBO incorporates into its baseline can affect budget projections. Experience shows that although in most cases, CBO's projections of the surplus for the coming fiscal year are likely to be within 1 percent of gross domestic product, discrepancies can become more substantial over a five-year horizon. CBO has been making 10-year projections only since 1992, so it is not yet possible to assess their accuracy. But 10-year projections are likely to be less accurate than five-year projections.

Future projections might be expected to be more accurate than past ones if CBO is learning from inaccuracies in its past forecasts. But the economy is changing, too. Many commentators believe that a major structural change has taken place, and that belief influences CBO's projections. However, any "new economy" (as described in Chapter 2 and Appendix A)

would have begun only in the past few years, which means that just a few years of data about it are available from which to extrapolate for the next decade. Moreover, those data are insufficient to determine clearly whether a shift to a higher level of productivity has occurred or whether the economy has temporarily deviated from underlying trends, as it has many times in the past. Projecting the economy and the budget under those circumstances is more uncertain than usual.

To show the potential impact of differences from its baseline assumptions, CBO has projected the budgetary effects of two alternative scenarios that make different but apparently reasonable assumptions about the future course of the economy and the cost of federal health care programs. One scenario assumes that the good economic news of the past few years will continue indefinitely; the other assumes that the economy has simply experienced another temporary divergence from stable, long-term trends and will shortly return to those trends. The projections that result from the two scenarios suggest a very wide range of possible outcomes for the budget.

Policymakers will have to decide what that degree of uncertainty means for a budget process that currently relies on long-term projections. Looking forward five or 10 years allows the Congress to consider the longer-term budgetary implications of policy changes. But it also increases the likelihood that budgetary decisions will be made on the basis of projections that later turn out to have been wrong.

The Accuracy of CBO's Past Budget Projections

Since 1986, CBO has produced budget projections each winter under the specifications of the Balanced Budget and Emergency Deficit Control Act, as amended, and the Budget Enforcement Act. Those laws require CBO to project the budget under certain assumptions: that discretionary spending is adjusted for inflation and, in some years, may be limited by specific caps; and that entitlement programs and taxes continue as under existing law, with certain extensions for expiring programs and provisions. (Before 1986, CBO's baselines were constructed under different assumptions about discretionary spending, so they cannot be easily compared with later baselines.)

In some respects, baseline budget projections are intended to deviate from reality. Because they are meant to serve as a neutral reference point for assessing policy changes, they make no assumptions about future legislation that might alter current budget policies. Of course, such legislation is likely to occur, but the purpose of baseline estimates is not to forecast legislation. Consequently, this section concentrates on inaccuracies in forecasting that flow from economic and technical factors.

Identifying the relative impacts of policy-related, economic, and technical factors on the accuracy of projections is an inexact science. Legislative changes are measured as CBO's estimates of the changes when they were enacted. If the legislation proves to have different effects from the ones initially estimated, those differences will be reflected as technical reestimates. (In most cases, quantifying the precise effects of legislation, even after the fact, would be difficult. Furthermore, it is not possible to measure the indirect effects on the economy of changes in policy, particularly those that result in significant changes in the outlook for budget surpluses or deficits.) In addition, the distinction between economic and technical reestimates is fraught with inaccuracy, both because the relationship between macroeconomic parameters and the budget is imprecise and because some factors related to economic performance—such as the level of capital gains

realizations and participation rates for various benefit programs—are classified as technical.

To assess its annual projections, CBO compared them with actual budgetary outcomes and attempted to determine the sources of any differences (after adjusting for the estimated effects of policy changes). The comparisons included 14 sets of projections for the current fiscal year (the one in which the projections were made), 13 sets for the following fiscal year (referred to as the budget year), and only nine sets for longer-range projections. On average, the absolute difference (without regard to the direction of the difference) between CBO's estimate of the federal deficit or surplus and the actual result was 0.6 percent of gross domestic product for the current year, 1.1 percent for the budget year, and 2.4 percent for the fifth year beyond the current year (see Table 5-1). If those averages were applied to the variation of the CBO baseline in which discretionary spending grows at the rate of inflation after 2000, the estimated surplus would be off in one direction or the other by about \$55 billion in 2000, \$110 billion in 2001, and \$285 billion in 2005.

Misestimates of the projected deficit or surplus are the net result of the separate estimates for revenues and outlays. In many past years, revenue and outlay discrepancies reinforced one another, but in a significant number of cases, those differences were at least partially offsetting.

Forecast differences affecting revenues have generally been larger than those involving outlays. In absolute terms, revenue projections have differed from actual outcomes by about 1.8 percent of revenues for the current year, 4.1 percent for the budget year, and 8.8 percent for the fifth year. Inaccuracies in projecting outlays were similar to those for revenues in the current year of the forecasts but about 25 percent smaller than revenue inaccuracies in the budget year. Outlays projected five years ahead missed actual outlays by 4.8 percent.

The misestimates went in both directions: sometimes the projections were too high and at other times too low. On average, CBO's forecast of the deficit or surplus has tended to be slightly pessimistic—that is, CBO overestimated deficits—for the first three years

of the projection period and slightly too optimistic for the last three. (That pattern may reflect the fact that deficit projections made between 1986 and 1991 were too high, and those made in more recent years were too low; the data on the later years are incomplete for projections made after 1994.) The revenue and outlay differences tended to work in the same direction as each other with regard to the deficit or surplus—near-term projections generally had outlays too high but

revenues too low, and medium-term projections had outlays close to the actuals but revenues too high.

Sources of Past Inaccuracies in Projected Revenues

Misestimates in projected revenues have stemmed mostly from inaccurate forecasts of economic devel-

Table 5-1.
Average Difference Between CBO Budget Projections and Actual Outcomes Since 1986 (In percent)

	Year for Which the Projection Was Made					
	Current Year	Budget Year	Budget Year + 1	Budget Year + 2	Budget Year + 3	Budget Year + 4
Difference as a Percentage of GDP						
Deficit or Surplus						
Average difference ^a	-0.3	-0.3	-0.1	0.2	0.6	0.7
Average absolute difference	0.6	1.1	1.6	1.9	2.3	2.4
Revenues						
Average difference	0.1	0.1	0.1	-0.1	-0.3	-0.5
Average absolute difference	0.3	0.8	1.0	1.2	1.5	1.6
Outlays						
Average difference	-0.2	-0.3	-0.2	*	0.1	0.1
Average absolute difference	0.4	0.7	0.8	0.8	1.0	1.0
Difference as a Percentage of Actual Outcome						
Revenues						
Average difference	0.6	0.4	0.1	-0.6	-1.8	-2.8
Average absolute difference	1.8	4.1	5.5	6.5	7.9	8.8
Outlays						
Average difference	-1.1	-1.3	-1.0	-0.4	0.3	*
Average absolute difference	1.9	3.1	3.8	4.1	4.7	4.8

SOURCE: Congressional Budget Office.

NOTES: This comparison covers the baseline budget projections that CBO published each winter between 1986 and 1999 in *The Economic and Budget Outlook*. Before 1986, CBO constructed its baseline in a different way that precludes comparison.

The current year is the fiscal year in which the projections are made; the budget year is the following fiscal year.

Differences are actual values minus projected values. Unlike the average difference, the average absolute difference ignores arithmetic signs and thus indicates the average distance between actual and projected values without regard to whether individual projections are overestimates or underestimates.

* = less than 0.05 percent.

a. A negative average difference for the deficit or surplus means that, on average, CBO overestimated the deficit.

opments—particularly the turning points of business cycles in the short term and the trend growth of the economy in the longer term—as well as misestimates of the share of each dollar of GDP being collected as taxes. In the past few years, the major source of inaccuracies has been the failure to predict both the apparent change in the trend growth of the economy that started around mid-decade and other economic changes, such as the boom in the stock market and the concentration of income growth among high-income taxpayers (who face higher marginal tax rates). Those misestimates are not surprising. In normal times, predicting turning points is one of the most difficult challenges that economic forecasters face, exceeded only by the challenge of predicting when history will no longer serve as a guide to forecasting.

Differences that result from missing cyclical turning points or misreading the trend growth rate of the economy fall into the economic category. In general, CBO measures economic differences as the effects on revenues when either overall GDP or taxable incomes in the national income and product accounts as a share of GDP differ from the level projected. In addition, to the extent that technical estimating differences—generally from unanticipated movements in revenues as a share of taxable incomes—are related to economic differences, the two types combine to cause relatively large forecast inaccuracies.

The two types of differences can be related. For example, between 1994 and 1998, not only was overall economic growth stronger and taxable incomes a greater share of GDP than anticipated, but liabilities for personal income taxes rose unexpectedly as a share of taxable personal incomes as measured in the NIPAs, accounting for much of CBO's forecast inaccuracy. That unexpected rise occurred in large part because of strong growth in capital gains realizations and other factors related to the booming stock market, as well as the concentration of income growth among high-income taxpayers, who face the highest tax rates (see Chapter 3 for more details). That situation contrasts with the experience before 1994, when CBO's misestimates of revenues were dominated more by macroeconomic factors, especially cyclical ones such as the 1990-1991 recession. (For more information about how changes in key economic variables affect budget projections, see Appendix C.)

Only during unusual periods has CBO's forecast for the budget year been off by more than 5 percent of revenues in either direction. The forecasts produced in 1996 through 1998 for fiscal years 1997 through 1999, respectively, are the only ones that underestimated revenues (excluding subsequent policy changes) by more than 5 percent. The two forecasts that overestimated revenues by that proportion were produced during the recession years of 1990 and 1991.

Despite their large uncertainty, CBO's revenue projections have shown very small differences from the actual outcomes, on average, over time. That overall performance, however, masks distinct differences in two periods. From 1986 through 1992, CBO showed a tendency to overestimate future revenues; since then, it has tended to underestimate them.¹ For example, overall since 1986, CBO's revenue forecast for the budget year has underestimated revenues by 0.4 percent, which would correspond to about \$7 billion at the current level of revenues. But before 1993, that forecast overestimated revenues by an average of 2.8 percent, whereas since 1993, it has underestimated them by an average of 4.3 percent (because of the factors described above). The average absolute difference (the average without regard to direction) over the full period registered about 4.1 percent.

Sources of Past Inaccuracies in Projected Outlays

Over the past 14 years, outlay differences resulting from flawed technical assumptions were nearly 50 percent larger than those resulting from inaccurate economic assumptions. For many years, the two types of differences offset one another to produce smaller net forecast inaccuracies. As with revenues, however, the 14-year span falls into two distinct periods. From 1986 to 1990, CBO's outlay projections were often too low, but since then they have consistently been too high. In the later period, moreover, economic and technical differences have been much more likely to reinforce than to offset one another.

1. Alan J. Auerbach, "On the Performance and Use of Government Revenue Forecasts," *National Tax Journal*, vol. 52, no. 4 (December 1999), pp. 767-782.

Inaccurate economic and technical assumptions manifest themselves primarily in the categories of mandatory spending and net interest outlays. Although discretionary spending may differ from expectations, CBO's projections of discretionary outlays are usually within 1 percent—less than \$4.0 billion annually during the 1993-1998 period—of the actual result. In contrast, projections of mandatory spending for programs such as unemployment benefits, Medicare, Medicaid, Food Stamps, and deposit insurance can differ significantly from actual spending because of unexpected economic developments and other factors.

Economic Differences. Economic performance strongly affects federal spending, both directly and indirectly. Higher inflation results in larger cost-of-living adjustments for beneficiaries of many cash benefit programs, higher reimbursements for health care services, and higher interest rates. It may also affect policymakers' decisions about the appropriate level of discretionary spending. Higher unemployment rates boost the caseloads of means-tested benefit programs such as Food Stamps and Medicaid and also increase the number of applicants for unemployment and disability benefits. Net interest costs are directly related to interest rates. Thus, inaccurate forecasts of key economic factors result in inaccurate outlay projections. Inaccurate economic forecasts during the 1986-1991 period caused CBO's outlay projections to be too high in some years and too low in others. Since then, the forecasts have generally resulted in overestimates.

Technical Differences. Inaccurate technical assumptions constitute the largest source of misestimates in CBO's outlay projections. Those technical assumptions—such as what proportion of eligible individuals and families will participate in benefit programs, how sound financial institutions will be, and how health care providers will behave—are critical factors in projections of spending. The largest changes to technical assumptions that CBO made during the late 1980s and early 1990s related to the deposit insurance crisis and the explosion of states' demands for Medicaid funds. More recently, CBO has reduced its assumptions about the use of Medicare services. Of course, any such changes that alter projected spending also affect the costs of servicing the federal debt.

Alternative Scenarios for the Future

Reviewing the differences between CBO's past projections and actual budgetary outcomes could suggest how accurate future projections might be—if future errors were likely to mirror those of the past. But whether that will happen is an open question. Chapter 2 and Appendix A describe the important changes of the past few years (the transition to a "new economy") that have raised the long-term rate of economic growth, and Chapter 3 identifies trends in income that have boosted revenues recently. However, not enough time has elapsed for analysts to be sure that those changes really represent a new trend in the economy and not just another temporary deviation. Thus, the range of uncertainty around CBO's projections must include the possibility that the "new economy" is just a flash in the pan, as well as the possibility that it is even more robust than CBO's baseline economic projections assume.

The two alternative scenarios examined below (referred to as the optimistic and pessimistic scenarios) are intended to reflect assumptions that, although systematically different from the ones in the baseline projections, still seem reasonable to CBO analysts. The scenarios alter not only economic assumptions but also some assumptions that are usually labeled technical. Those assumptions include the level of capital gains realizations, the proportion of income taxed at higher rates, and the growth of spending for the major federal health care programs.

The two scenarios indicate a wide range of possible outcomes for the budget. Under the alternative scenarios, the total budget surplus or deficit in 2010 differs from the one in CBO's baseline projections by \$700 billion to \$800 billion in either direction; the on-budget surplus or deficit in 2010 differs by \$600 billion to \$700 billion. The 10-year totals generally differ by \$3 trillion to \$4 trillion.

CBO's Baseline Assumptions

The baseline economic assumptions reflect recent favorable developments for the budget, including the extraordinary growth in productivity, the rise in incomes and capital gains realizations relative to GDP, and the concentration of income growth among people with higher tax rates. Labor productivity had been increasing at an average annual rate of about 1.6 percent since 1973, but after 1996 it accelerated to a rate of about 2.6 percent. CBO's baseline economic projections assume that most, but not quite all, of that acceleration is permanent: in those projections, trend productivity grows at a rate of about 2.3 percent. Total income (on which taxes are based) grew at a 6.1 percent rate between 1996 and 1998, while nominal

GDP grew at a 5.8 percent rate. CBO's baseline projections assume that the growth of total income will remain high for the next two years but will then slow to about the same rate as GDP.

In addition, personal income tax liabilities grew at an average annual rate of almost 11 percent from 1994 to 1998, while taxable personal income in the NIPAs grew by 6.5 percent a year. As a result, personal income taxes as a share of taxable personal income rose by 2 percentage points, from 11 percent to 13 percent. (CBO estimates that the latter figure would have risen by an additional 0.3 percentage points if the Congress had not passed legislation in 1997 cutting individual income taxes.) A number of factors caused that rapid rise, including growth in cap-

Table 5-2.
Key Economic Variables Under Alternative Scenarios (By fiscal year, in percent)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Real GDP Growth											
Optimistic Scenario	3.7	3.5	3.2	3.0	3.0	3.1	3.1	3.1	3.1	3.3	3.3
CBO Baseline	3.3	3.1	2.8	2.6	2.6	2.7	2.7	2.7	2.7	2.9	2.9
Pessimistic Scenario	2.8	2.2	1.7	1.6	1.8	2.0	2.1	2.1	2.1	2.1	2.1
Wages, Salaries, and Corporate Profits as a Share of GDP											
Optimistic Scenario	57.6	57.4	57.2	57.2	57.2	57.3	57.5	57.6	57.8	57.9	58.0
CBO Baseline	57.4	57.1	56.6	56.3	56.2	56.0	56.0	56.0	55.9	55.9	55.8
Pessimistic Scenario	57.1	56.5	55.9	55.5	55.2	55.0	54.9	54.8	54.7	54.6	54.4
Personal Income Taxes as a Share of NIPA Taxable Personal Income											
Optimistic Scenario	13.7	14.1	14.6	15.0	15.3	15.4	15.6	15.7	15.9	16.1	16.3
CBO Baseline	13.3	13.4	13.4	13.4	13.5	13.6	13.7	13.8	14.0	14.1	14.3
Pessimistic Scenario	12.9	12.5	12.1	11.7	11.5	11.5	11.6	11.6	11.7	11.7	11.8
Growth of Medicare and Medicaid Spending											
Optimistic Scenario	4.4	8.0	3.7	7.3	6.8	8.3	4.0	8.2	6.9	7.1	7.2
CBO Baseline	5.5	9.0	4.7	8.3	7.8	9.3	5.0	9.2	7.9	8.1	8.2
Pessimistic Scenario	6.6	10.0	5.7	9.3	8.8	10.3	6.0	10.2	8.9	9.1	9.2

SOURCE: Congressional Budget Office.

NOTES: See the text for a description of the scenarios.

NIPA = national income and product accounts.

Table 5-3.
Budget Surpluses Under Alternative Scenarios, by Assumption About Discretionary Spending
(By fiscal year, in billions of dollars)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Total, 2001- 2010
Total Budget												
<i>Surplus If Discretionary Spending Grows at the Rate of Inflation After 2000</i>												
Optimistic Scenario	208	257	346	432	514	591	705	812	915	1,039	1,173	6,784
CBO Baseline	176	177	209	227	246	268	325	368	399	444	489	3,152
Pessimistic Scenario	141	80	39	-23	-74	-113	-117	-143	-189	-232	-286	-1,058
<i>Surplus If Discretionary Spending Is Frozen at the Level Enacted for 2000</i>												
Optimistic Scenario	208	268	370	476	580	678	814	944	1,072	1,223	1,387	7,812
CBO Baseline	176	188	232	271	312	355	434	500	556	628	703	4,179
Pessimistic Scenario	141	91	62	22	-8	-26	-9	-12	-32	-48	-72	-32
<i>Surplus If Discretionary Spending Equals CBO's Estimates of the Caps Through 2002 and Grows at the Rate of Inflation Thereafter</i>												
Optimistic Scenario	208	315	431	526	613	700	818	929	1,041	1,174	1,317	7,864
CBO Baseline	176	235	294	321	345	376	438	485	526	579	633	4,234
Pessimistic Scenario	141	138	124	72	25	-4	-5	-27	-62	-97	-142	22
On-Budget Accounts												
<i>Surplus If Discretionary Spending Grows at the Rate of Inflation After 2000</i>												
Optimistic Scenario	53	85	154	222	285	341	436	522	603	706	820	4,174
CBO Baseline	23	11	26	31	37	43	86	115	131	162	195	838
Pessimistic Scenario	-9	-76	-126	-192	-250	-298	-311	-345	-397	-446	-504	-2,945
<i>Surplus If Discretionary Spending Is Frozen at the Level Enacted for 2000</i>												
Optimistic Scenario	53	96	178	266	351	428	543	652	759	890	1,032	5,195
CBO Baseline	23	22	50	76	102	129	194	245	288	346	407	1,858
Pessimistic Scenario	-9	-65	-102	-148	-185	-212	-203	-214	-241	-263	-292	-1,925
<i>Surplus If Discretionary Spending Equals CBO's Estimates of the Caps Through 2002 and Grows at the Rate of Inflation Thereafter</i>												
Optimistic Scenario	53	143	239	316	385	450	548	638	730	842	964	5,255
CBO Baseline	23	69	112	126	136	151	199	231	258	298	339	1,918
Pessimistic Scenario	-9	-18	-40	-98	-151	-190	-198	-228	-271	-311	-360	-1,865

SOURCE: Congressional Budget Office.

NOTES: Negative numbers indicate deficits.

See the text for a description of the scenarios.

ital gains realizations, real income, and the proportion of income taxed at higher rates (see Chapter 3).

CBO expects personal income tax liabilities to continue growing faster than income because real income growth places more income in higher tax brackets and more people become subject to the alternative minimum tax. In its baseline, CBO projects that personal income tax liabilities as a share of taxable per-

sonal income will rise from 13.3 percent in 2000 to 14.3 percent in 2010 (see Table 5-2 on page 102).

The Optimistic Scenario

Although those various assumptions appear reasonable given the available data, other assumptions are clearly possible and also reasonable. Thus, one of

Box 5-1.

The Budgetary Effects of a Business Cycle

One obvious concern about budget projections is how vulnerable they are to a recession. Although the current U.S. economic expansion is the longest during peacetime, history strongly suggests that some form of downturn should be expected to occur in any 10-year period. In the experience of the Congressional Budget Office (CBO) and other forecasters, however, predicting the turning points of business cycles is extremely difficult. For that reason, CBO does not attempt to forecast cyclical developments in the economy beyond the next year. Instead, its economic projections for 2002 through 2010 are based on a relatively smooth path that eventually (by 2008) brings the economy to its estimated long-term trend, or potential (see Chapter 2 for more details).

By its construction, that baseline projection allows for the likelihood that a recession of average severity will occur sometime in the next 10 years. As long as the economy is not buffeted by external shocks to prices (such as occurred in 1974 and 1979), gross domestic product (GDP) is expected to be above its estimated potential during booms and below its estimated potential during recessions. On average over the business cycle, actual GDP should be equal to potential GDP. By projecting that GDP will revert to its potential level, therefore, CBO is assuming that the probability of recessions will return to its average level.

Although the baseline budget projections described in Chapter 1 assume some sort of recession, they do not show what would happen if the economy followed a realistic business cycle rather than a smooth path. This box illustrates one such possibility. It shows that the budgetary implications of the business cycle would be largely temporary.

The example assumes that the economy grows rapidly enough in the next two years (about 3.7 percent annually) to raise inflation to 3.4 percent in 2002 and to cause the Federal Reserve to tighten monetary policy vigorously. Short-term interest rates peak at 7 percent, nearly 2 percentage points higher than in the baseline assumptions. That monetary tightening brings on a recession of about average size, raising the unemployment rate to 6.4 percent in 2004. Real GDP grows by only 1.3 percent in 2003 and falls by 0.5 percent in 2004. After that, the recession ends as inflation drops temporarily below the baseline projection of 2.5 percent and the Federal Reserve eases monetary policy; eventually, real growth, the unemployment rate, the inflation rate, and real interest rates return to their baseline values.

That is a typical scenario for a U.S. recession: most of the postwar examples have been preceded by monetary tightening. It is by no means the only possible scenario, however. In the past, some recessions have been preceded by collapses in stock prices; in the future, they might also be precipitated if foreign investors decide that they no longer want to invest as heavily in the United States as they do now. A recession could also have effects that are not included in this scenario—such as lowering incomes, particularly among people who pay the highest taxes. Little is known, however, about the effects of the business cycle on income distribution, so this cyclical scenario omits such effects.

Budget projections based on this scenario suggest that the surpluses projected in Chapter 1 for the next 10 years will not vanish in a recession unless it is much larger than normal. Under the cyclical scenario, the budget outlook improves slightly for the

CBO's alternative scenarios assumes that the recent good news for the budget continues more or less unabated. In that alternative (the optimistic scenario), trend productivity growth is 2.6 percent rather than 2.3 percent, and total income continues to grow faster than GDP for all of the next decade. In addition, the alternative assumes that the recent increase in personal tax liabilities as a share of taxable personal income that was unrelated to real growth (caused largely by

capital gains and the concentration of income growth among higher-income taxpayers) continues for another four to five years. Those liabilities therefore rise to 16.3 percent of taxable personal income by 2010—2 percentage points higher than in the baseline—with a small amount of that increase resulting from the higher real growth and productivity (see Table 5-2). On the outlay side of the budget, the optimistic scenario assumes that Medicare and Medicaid spending will grow

Box 5-1. Continued

next two years because temporarily stronger growth and higher inflation boost revenues. As a result, for a while the surplus is higher than under CBO's baseline variations (see the table below). By 2003, when rising interest rates are assumed to bring on the recession, the projected surplus begins to dip below the baseline; and by 2005, the recession reduces the annual surplus by close to \$100 billion. After 2005, however, economic expansion gradually brings the surplus back to what it would have been without a recession.

In this scenario, the surplus actually ends up a little higher in 2010 than in the baseline because the higher

inflation that is assumed to precede the recession is not quite offset during the recession, leaving prices and revenues slightly higher than their baseline levels. But minor changes in the assumed course of the recession could easily leave the surplus slightly below the baseline. Nevertheless, over the course of the whole 10 years, the cyclical scenario would leave cumulative surpluses, and hence federal debt, quite close to the baseline projections. That outcome is to be expected, since the baseline economic assumptions anticipate an average probability that a recession will occur during the next 10 years.

Federal Surpluses in a Business Cycle (By fiscal year, in billions of dollars)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Total, 2001- 2010
Total Surplus If Discretionary Spending Grows at the Rate of Inflation After 2000												
Cyclical Scenario	178	186	226	221	158	167	267	364	422	469	501	2,982
CBO Baseline	176	177	209	227	246	268	325	368	399	444	489	3,152
Total Surplus If Discretionary Spending Is Frozen at the Level Enacted for 2000												
Cyclical Scenario	178	201	260	283	244	271	393	515	600	675	738	4,180
CBO Baseline	176	188	232	271	312	355	434	500	556	628	703	4,179
Total Surplus If Discretionary Spending Equals CBO's Estimates of the Caps Through 2002 and Grows at the Rate of Inflation Thereafter												
Cyclical Scenario	178	248	321	327	271	289	393	496	565	622	664	4,197
CBO Baseline	176	235	294	321	345	376	438	485	526	579	633	4,232

SOURCE: Congressional Budget Office.

at an annual rate that is 1 percentage point lower than in the baseline. The scenario makes a variety of other assumptions whose effects are smaller but all of which tend to increase the projected surplus.

The budget outlook would improve dramatically under the assumptions of the optimistic scenario (see Table 5-3 on page 103). By the end of the decade, if discretionary spending grew at the rate of inflation but there was no other action to cut taxes or increase spending, the annual on-budget surplus would exceed \$800 billion, and the total budget surplus would near \$1.2 trillion. Projected surpluses of that magnitude would imply massive federal holdings of nonfederal assets (more than \$4 trillion). If discretionary spending was instead held to the lower levels implied by the statutory caps through 2002, or was frozen at the level of fiscal year 2000, surpluses would be even larger.

The Pessimistic Scenario

The pessimistic scenario reverses most of the assumptions of the optimistic scenario and assumes that the economy reverts in many respects to its situation before 1996. In this scenario, trends in the economy are generally unfavorable to the budget. The pessimistic alternative does not explicitly incorporate a recession, because one is already built into the economic baseline described in Chapter 2. (For more details about the effects of a recession on 10-year budget projections, see Box 5-1 on page 104.) Instead, the pessimistic scenario assumes that the recent burst in productivity will prove temporary, so future productivity growth averages its historical 1.6 percent rate and incomes revert to their past relationship with GDP. In addition, it assumes that the 1994-1998 increases in personal tax liabilities as a share of taxable personal income that were unrelated to real income growth phase out over the next four to five years—the same amount of time they took to build up. Medicare and Medicaid spending is assumed to grow 1 percentage point faster than in the baseline.

Under that scenario, the on-budget surpluses expected under the baseline assumptions would never emerge. Instead, on-budget deficits would rise to over \$290 billion a year by the end of the decade (see Table

5-3). Total budget deficits would be smaller; if discretionary spending was held at its 2000 level for the whole decade, they would stay under \$100 billion a year.

Other Possibilities

The optimistic and pessimistic scenarios are not meant to encompass the full range of possible budgetary outcomes but rather to illustrate how those outcomes could differ from the one described in Chapter 1. Even higher or lower budget surpluses are not difficult to envisage, especially in the short run. In the January *Blue Chip* survey of private economic forecasters, for example, a few forecasts of GDP growth exceed CBO's optimistic scenario for 2000 and 2001, and a few fall short of CBO's pessimistic scenario for 2001. If the other assumptions in those forecasts are similarly optimistic or pessimistic, they could imply either higher or lower budget projections for 2001 than those under the optimistic and pessimistic scenarios.

CBO's alternative scenarios do not explore all possible changes in assumptions: for example, they take labor force projections as a given. Over a 10-year period, the principal uncertainties in labor force projections come from assumptions about labor force participation and legal and illegal immigration. The Social Security Administration assumes much lower labor force participation than CBO does in its projections; if those assumptions proved accurate, they would worsen the 10-year budget outlook by reducing the sustainable growth of the economy.

Likewise, CBO's projections follow the Census Bureau's in assuming that net immigration will average nearly 900,000 people per year between 1999 and 2010. Immigration is partly a matter of policy and can be affected both by changing quotas for legal immigrants and by altering the degree of effort made to keep out illegal immigrants. Policy changes that increased the number of immigrants (particularly those with skills) could increase growth. They might also improve the outlook for the federal budget, because immigrant workers usually pay taxes but are not generally eligible for most federal benefits in their first years in the United States.

An even wider range of assumptions about productivity growth than that lying between the optimistic and pessimistic alternatives might also be reasonable. CBO's pessimistic scenario, in particular, assumes that the future growth rate of productivity will return to its average of 1973 to 1995. If productivity growth over the next 10 years is instead slower than its previous trend, thus reversing the gains since 1996, the budget outlook will be substantially worse than even the pessimistic scenario.

Assumptions about federal health care costs could also span a much broader range of possible growth rates than the alternative scenarios incorporate. Those scenarios reflect growth rates that are 1 percentage point above or below CBO's baseline assumptions. But historical spending patterns in the Medicare and Medicaid programs suggest that a much broader range of outcomes around CBO's baseline is plausible. Over the past 15 years, the growth of Medicare spending above the growth attributable to enrollment and general inflation has averaged 3.5 per-

cent, compared with 2.8 percent in the baseline. In only five years did that rate of excess growth fall below CBO's baseline projections; in the other 10 years, the excess averaged 5.3 percent.

How likely is it that the actual outcome for the budget will lie between the optimistic and pessimistic scenarios? Unfortunately, no exact probability calculations can be made. The scenarios were constructed by choosing optimistic and pessimistic assumptions in several areas, and it is clearly less likely that all of those assumptions will prove true at once than that any one of them will prove true. If that were the only consideration, the scenarios might encompass most of the likely outcomes, and more extreme assumptions would be relatively unlikely. But an even wider range of assumptions might be reasonable. And several of the assumptions—especially the changed trend in productivity growth—are based on only a very few years of data. If history from before 1996 is irrelevant to the projections, then forecasters have little on which to base any projection.

Appendixes

Has the United States Entered a New Era in Productivity Growth?

The performance of the U.S. economy in recent years has been exceptional. The combination of rapid economic growth, low inflation, and falling unemployment experienced since 1995 is unprecedented this far into an economic expansion. Largely for that reason, most recent economic forecasts have turned out to be too pessimistic. Although history suggests that boom periods are temporary, the economy shows few signs of slowing down. Domestic confidence on the part of businesses and consumers is very high, as evidenced by the sustained boom in both investment and consumer spending. Moreover, the recent economic performance has inspired foreign confidence in the U.S. economy as well, attracting capital inflows and keeping the exchange value of the dollar strong.

One striking aspect of recent economic history is the vigorous growth in labor productivity, which since 1995 has been running considerably faster than its post-1973 trend. That acceleration coincided with the explosive growth in many areas of information technology, including telecommunications (for example, mobile telephones), personal computers, and wide- and local-area networks, including most notably the Internet. As a result, some observers have declared that the United States is in a "new era," arguing that, among other reasons, advances in communications and information technology allow firms to reduce costs and improve efficiency more rapidly than before. Those observers believe that the historical trends are no longer a relevant benchmark for labor productivity and that the recent rapid growth will persist.

The Congressional Budget Office's (CBO's) analysis of the recent surge in productivity growth concludes, however, that although the trend over the next 10 years is likely to be higher than that observed for the past 25 years, some of the recent acceleration may be temporary. Accordingly, CBO's 10-year projections now incorporate productivity growth of 2.2 percent—higher than the 1.5 percent trend rate of growth since 1973 but lower than the 2.6 percent of the past four years.

Cyclical Concerns

The recent upswing in productivity growth has almost completely reversed the slowdown that began during the early 1970s (trend growth of productivity before 1973 was 2.7 percent a year).¹ Growth in potential, or cyclically adjusted, labor productivity has also accel-

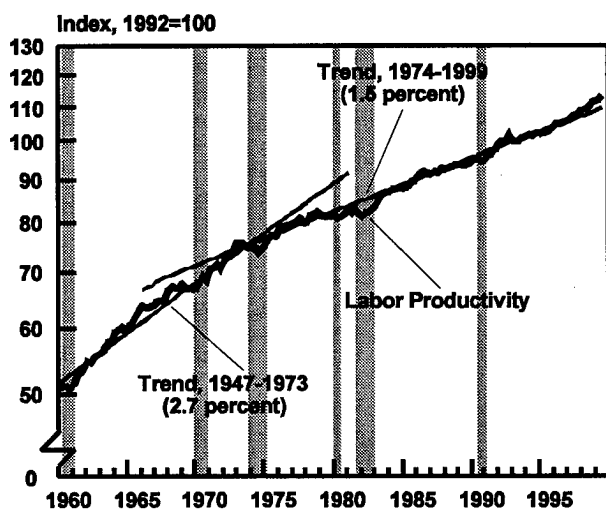
-
1. Data on labor productivity are affected by methodological changes in the formulas used to calculate price indexes. In recent years, the Bureau of Labor Statistics has made many changes that have reduced the measured rate of inflation. Those changes have fed through to the price indexes used in the national income and product accounts, thereby implying higher real gross domestic product and faster productivity growth. Thus, the growth rate of labor productivity is not strictly comparable with rates from earlier periods because those rates are not measured on the same basis. CBO estimates that changes in price measurement have contributed 0.1 percentage point to the growth in labor productivity during the 1996-1999 period.

erated, from an average rate of 1.5 percent between 1973 and 1995 to 2.3 percent since then.

Looking at the data from a longer-term perspective, it is not entirely obvious, despite productivity's healthy performance, that trend growth has changed (see Figure A-1). The trend in labor productivity has been quite stable since 1973, and four years is a relatively short period from which to discern a new trend. The 1973-1999 period has included several four-year episodes of growth that was faster or slower than trend. Indeed, even though growth was half a percentage point below trend during the 1992-1995 period, few analysts were suggesting in late 1995 that there was another productivity slowdown. Projecting that deviation from trend would in fact have produced a forecast of labor productivity that was far too low.

One possibility is that the recent growth is largely cyclical. Like most economic series, labor productivity follows a fairly regular pattern during the business cycle, generally rising above trend early in a

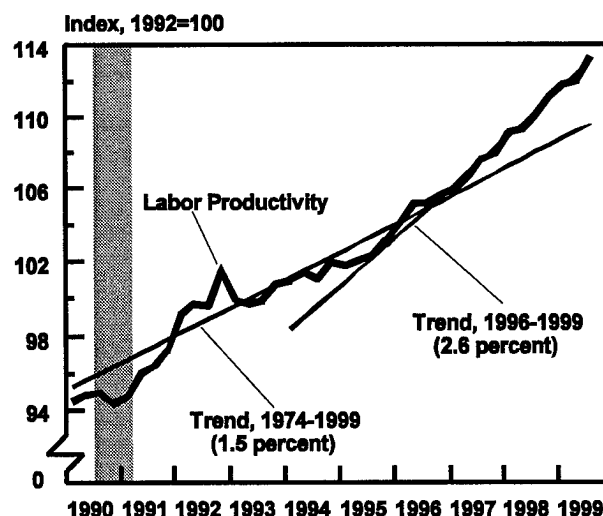
Figure A-1.
Labor Productivity and Its Trend
Growth Since 1973



SOURCES: Congressional Budget Office; Department of Labor, Bureau of Labor Statistics.

NOTE: Values are plotted using a logarithmic scale.

Figure A-2.
Effects of a Trend Break in 1996 on the
Trend Growth of Labor Productivity



SOURCES: Congressional Budget Office; Department of Labor, Bureau of Labor Statistics.

cycle and falling off during the late stages of an expansion. Although labor productivity has not followed that pattern during the current business cycle, the point remains: comparisons of growth rates through time are best made by including either a full cycle or similar portions of the cycle (for example, midcycle to midcycle). Examining the post-1995 period in isolation is therefore misleading; in particular, it ignores the period of very slow growth from 1992 to 1995.

The question of whether labor productivity is now following a faster trend is crucial for economic and budget projections. Continuing the post-1973 trend would yield projected growth of 1.6 percent a year, on average, for the 2000-2010 period.² Alternatively, inserting a break point in the trend in 1996 would allow the trend rate to increase dramatically during the 1996-1999 period (see Figure A-2). In essence, that approach assumes that the recent pace of productivity growth will continue; the trend rate jumps to 2.6 percent after 1995 and remains there through 2010. That difference of 1 percentage point in pro-

2. The projected growth rate of 1.6 percent consists of two parts: trend growth of 1.5 percent plus 0.1 percentage point resulting from changes in price measurement.

jected productivity growth would have an enormous impact on the 10-year projection for economic growth. It would raise the level of real gross domestic product (GDP) in 2010 by more than 10 percent. (The effects of alternative assumptions about growth in real GDP and productivity are discussed in Chapter 5.)

What Factors Underlie the Recent Surge in Productivity Growth?

CBO has examined the data underlying productivity growth and identified two causes for the recent upturn—rapid advances in the quality of computers and the boom in business investment. The first cause emanates from the computer sector, but not in the manner envisioned by the proponents of the new-era view. The second cause, also referred to as capital deepening, describes the increase in the amount of capital available per worker in the economy. Those two factors have powerful effects. Together, they explain roughly 0.6 percentage points of the 1.1 percentage-point increase in productivity growth since 1995. Neither of the effects is likely to be permanent, however.

Effects of Technological Advances in Computer Production

A significant share of the upturn in overall productivity growth can be attributed to an acceleration in the pace of technological change in the production of computers. Supporters of the new-era view contend that much of the recent surge in productivity growth is the result of advances in and more efficient use of information technology. That argument is supported by the close correlation between the timing of the productivity upswing and explosive growth in the use of computers and related technology in the U.S. economy.

Another possible explanation for that correlation, however, focuses more on the production of computers than on their use. A significant portion of the surge in overall productivity growth can be traced to faster productivity growth in the sector of the economy that

manufactures computers.³ Furthermore, much of the increase in that sector's productivity can be ascribed to the faster pace of technological change in the production of computers, which shows up as an acceleration in the decline of computer prices in the national income and product accounts (NIPAs). The Bureau of Economic Analysis (BEA) measures computer prices using an approach that estimates the change in price of a quality-adjusted computer. Under that so-called hedonic approach, if the list price of a computer remains constant from one year to the next but the newer computer has, for example, a faster processor or more storage capacity, then the BEA price index declines.

Technical progress in the computer industry is not a recent phenomenon. Computer prices, as measured in the NIPAs, have fallen continuously since the 1970s. However, that decline has accelerated in the past three years, from a 15 percent average rate between the 1970s and the early 1990s to 28 percent since 1995. In addition, computer production as a share of GDP in the nonfarm business sector has increased rapidly since the late 1980s, to about 1.3 percent in 1998. The faster drop in computer prices, combined with the larger share of GDP, means that changes in the rate of technological change in the computer industry now have measurable effects on the growth in overall productivity.

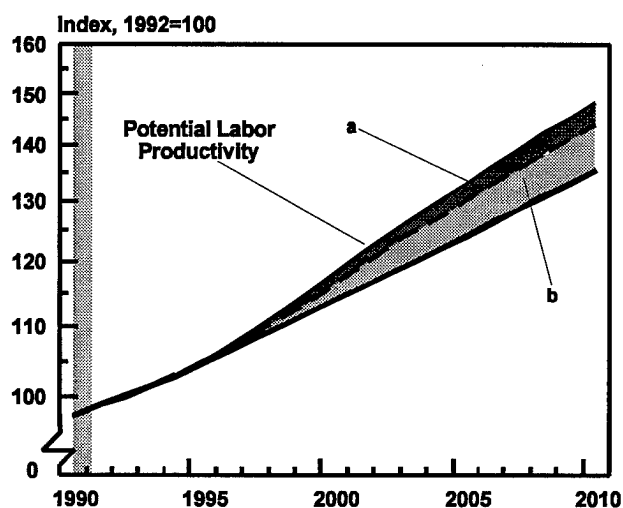
In CBO's judgment, estimating and projecting labor productivity in the medium term is best accomplished by modeling technological change in the computer sector separately from that in other sectors. To estimate the effects of computer quality on productivity growth, CBO calculated an index of computer prices that comprises the price indexes for personal and business spending on computers and those for computer exports and imports. The rate of change in quality was measured as the rate of decline of the computer price index relative to the growth rate of the price index for GDP in the nonfarm business sector. To calculate the contribution of computers to the

3. This argument has been made by Robert Gordon and the consulting firm Macroeconomic Advisers. See Robert Gordon, "Has the New Economy Rendered the Productivity Slowdown Obsolete?" (paper presented to CBO's Panel of Economic Advisers, June 1999), and "Productivity and Potential GDP in the New U.S. Economy" (a special analysis by Macroeconomic Advisers, September 1999).

growth of labor productivity, the rate of change in computer quality was weighted by the nominal share of computers in the nonfarm business sector. The deviation of that variable from its recent trend was used to estimate the acceleration of technical progress; it is zero until 1995, then 0.2 percentage points a year during the 1996-1999 period.

CBO assumed that the recent acceleration in the improvement of computer quality will persist throughout the projection period. CBO's projection of the trend growth of productivity is thus 0.2 percentage points higher than it would be if the rate of improvement in computer quality returned to its previous trend (see Figure A-3).

Figure A-3.
Effects on Potential Labor Productivity of Capital Deepening and an Adjustment for Computer Quality



SOURCES: Congressional Budget Office; Department of Labor, Bureau of Labor Statistics.

NOTE: Values are plotted using a logarithmic scale.

- a. The effect of adjusting for computer quality (averages 0.2 percentage points a year during the 2000-2010 period).
- b. The effect of capital deepening (averages 0.4 percentage points a year during the 2000-2010 period).

Effects of Capital Deepening

Another factor that helps explain the rapid growth in labor productivity is capital deepening—the increase in the amount of capital per worker in the economy. Estimating the size of that effect is difficult, for two reasons. First, measuring the amount of productive capital in the economy is subject to a high degree of uncertainty, largely because of the difficulty in estimating depreciation, which is the loss in efficiency of capital resulting from normal wear and tear. Business purchases of plant and equipment can be tallied to produce a historical series for investment, but no such data source exists for economic depreciation (as distinct from the depreciation reported for tax purposes). Second, even with an estimate of the capital stock, estimating the contribution of capital accumulation to real growth can be problematic. Although that estimate can be made in many ways, CBO hews to a standard model of long-term economic growth—the Solow growth model.

When estimating the contribution of capital to productivity growth, the horizon over which the analysis is performed is important. Previous empirical studies of long-run growth clearly indicate that much of the variation in labor productivity growth over very long horizons—50 to 100 years—can be explained by changes in the rate of capital deepening.⁴ They also indicate that those changes explain very little of the variation in productivity growth over short horizons: say, from one year to the next. CBO has concluded that an association exists between growth in the ratio of capital to labor and in labor productivity at intermediate frequencies (say, 10 years or so), especially if the data have been purged of the effects of the business cycle.⁵

Using the Solow growth model and the cyclically adjusted data that underlie CBO's estimate of potential output, the faster-than-average growth in the capital-to-labor ratio has contributed approximately

4. See Robert Arnold and Robert Dennis, "Perspectives on Productivity Growth," *Business Economics* (April 1999).

5. See the discussion in Box 1-1 in Congressional Budget Office, *The Economic and Budget Outlook: Fiscal Years 2000-2009* (January 1999).

0.4 percentage points to the 2.3 percent growth in potential labor productivity since 1995.⁶ In CBO's projections, capital deepening has a similar effect on productivity during the 2000-2010 period (see Figure A-3).

Projections of Potential Growth in Productivity

In CBO's projections, growth of potential productivity averages 2.3 percent a year between 2000 and 2010, which implies a projection for potential output of 3.1 percent. (The average growth rate shown in Table 2-6 in Chapter 2 is, of course, somewhat lower because CBO estimates that GDP is currently higher than its

sustainable, or potential, level.) Like most forecasters, CBO computes its 10-year projections using trends in historical data. In the absence of any information about the sources of the productivity surge, CBO would project productivity using a long-term trend, probably about 1.6 percent, on average, during the 2000-2010 period, which is well below the recent pace. After examining the recent data, however, CBO decided to reflect much of the recent acceleration in productivity growth in its medium-term projections through the effects of capital deepening and the adjustment for computer quality.

The precise causes of the recent acceleration in productivity are still subject to dispute, and consequently, there is much uncertainty about the most appropriate projection for productivity. Future events may show that the acceleration was entirely cyclical and will be reversed during the next business cycle. Or the future may demonstrate that CBO has underestimated the trend, which could continue at recent rates indefinitely. The uncertainty surrounding the projection of productivity, though never small, seems even larger than usual (see Chapter 5).

6. That 2.3 percent growth rate differs from the 2.6 percent growth rate cited earlier in this appendix because it refers to the growth in potential, or cyclically adjusted, labor productivity rather than actual labor productivity.

The CBO Baseline for Spectrum Auction Receipts

By law, the Federal Communications Commission (FCC) must use competitive bidding, or auctioning, to assign licenses to use the radio spectrum when more than one commercial party seeks such licenses. (The radio spectrum is that part of the electromagnetic spectrum that can be used for telecommunications services.) The right to use the radio spectrum is an indispensable ingredient in providing mobile telephone, radio, and television services, and it is also likely to play a future role in providing high-speed Internet services. The first auctions of licenses to use the radio spectrum were authorized by the Omnibus Budget Reconciliation Act of 1993 (OBRA-93).

Since 1994, the federal government has recorded about \$17 billion in receipts from FCC auctions, net of subsidies for licenses financed by federal loans. The Congressional Budget Office (CBO) projects that auctions of spectrum licenses will yield an additional \$18 billion in receipts from 2001 through 2010 (see Table B-1).

In developing its baseline projections for spectrum auctions, CBO attempts to measure the net effect of many diverse—and sometimes conflicting—elements that will determine future auction receipts. Those elements include the statutory guidelines that shape FCC auctions, the amount of spectrum that will be auctioned, and the likely prices for that spectrum

(which in turn will depend on a host of economic and technological factors).

Statutory Guidelines for FCC Auctions

In designing auctions for spectrum licenses, the FCC is required by law to meet multiple goals and not focus simply on maximizing receipts. Those goals include ensuring efficient use of the spectrum, promoting economic opportunity and competition, avoiding excessive concentration of licenses, preventing the unjust enrichment of any party, and fostering the rapid deployment of new services, as well as recovering for the public a portion of the value of the spectrum. In past auctions, the FCC has tried to strike a balance among such objectives by offering favorable financial terms for “designated entities,” such as small businesses, varying the geographic scope of licenses, tailoring bandwidth plans to accommodate different uses, and limiting the amount of spectrum that individual companies can control in specific markets. The mix of policies is likely to vary in future auctions, but CBO assumes that the FCC will continue to manage spectrum resources in a way that balances its various statutory objectives.

Table B-1.
CBO Projections of Spectrum Auction Receipts (By fiscal year, in billions of dollars)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Receipts	-3.9	-5.7	-4.9	-1.0	-0.9	-0.9	-0.8	-0.1	0	0

SOURCE: Congressional Budget Office.

The Quantity of Spectrum to Be Auctioned

The amount of spectrum auctioned over the next three years will be determined largely by statutory directives in OBRA-93 and the Balanced Budget Act of 1997. Over the 2000-2002 period, the FCC is required to auction the rights to use about 190 megahertz of spectrum, most of which is located below 3 gigahertz. Those auctions are expected to nearly double the amount of spectrum potentially available for mobile telecommunications services. Besides those required auctions, CBO expects the FCC to auction licenses to use other frequencies, consistent with its broad statutory authority to allocate frequencies for commercial use as new technologies and market developments permit. CBO's baseline includes receipts from both types of auctions. The auctions are expected to continue through 2007—when the FCC's auction authority expires—although receipts may be deposited in subsequent years.

The Prices Paid for Spectrum

The markets in which telecommunications and broadcast services are sold are imperfect. They are in the process of moving from regulated monopolies to less regulated, more competitive conditions. At the same time, new technologies are dramatically affecting both the variety of services that can be delivered to consumers and their costs. Eligible bidders typically come to an auction with different demands for spectrum, based

on their lines of business, geographic scope of operations, competitive standing, and other strategic considerations. Those different demands imply that even a well-structured auction is likely to have unpredictable results.

Nevertheless, to produce baseline projections and estimate the impact of proposed legislation, CBO assumes that the results of past auctions and private sales of comparable licenses are a reasonable guide to future trends in auction receipts. In any auction, bid prices are likely to be affected by a variety of general factors, including trends in technology, possible encumbrances on licenses, the preparedness of bidders, and volatility of market conditions. In addition, when evaluating specific auctions, CBO considers any publicly available information about the characteristics of the frequencies being auctioned, the auction rules, the likely range of bidders, and other specific factors.

Trends in Technology

Technological advances often create new market opportunities, which in turn can increase the demand for and value of additional supplies of spectrum. Much of the spectrum being auctioned in the next few years is located in bands below 3 gigahertz—frequencies that are suitable for various emerging technologies in mobile communications and other wireless applications, including wireless Internet and data applications and the development of “third-generation” mobile telecommunications systems (which simultaneously provide voice and high-speed data communications). Market enthusiasm for those new applications may bolster the prices paid in such auctions. Auctions involving “upper bands” (above 3 gigahertz) are expected to yield

lower unit prices, because the usefulness of those frequencies is more limited.

Encumbrances

CBO adjusts its estimates of auction proceeds if the new licenses appear likely to be encumbered. For example, large blocks of spectrum planned for auction in 2000 and 2002 involve frequencies now being used for analog television broadcasts. Those channels will not be available for new uses until the television stations that use them stop broadcasting—either because the new licensee has paid the stations to stop or because their transition to digital television is complete. Although current law says that this transition should be finished by 2006, it allows for the deadline to be extended. CBO expects bidders in those auctions to discount their bids to account for the potential cost of paying broadcasters or the risk that the transition will extend beyond 2006.¹

Bid Preparation

Giving bidders enough time to review auction rules, examine technical opportunities, prepare marketing plans, and arrange financing is critical to obtaining full value in an auction. Consequently, the FCC typically vets proposed auction rules for several months and then, after announcing an auction, waits another six months before conducting it. A lack of time for such preparations has been cited as one reason that the 1997 auction for wireless communications services, which followed an abbreviated schedule dictated by law, raised only \$14 million instead of the hundreds of millions of dollars originally expected. CBO's baseline projections assume that in the future, the FCC will allow sufficient time for bidders to respond to proposed regulations and to prepare for an auction.

Volatility in Market Values

The prices bid at an auction reflect the balance of demand and supply for specific frequencies at a given

point in time. Market participants' assessments of that balance can change rapidly and unpredictably over short periods of time. Perhaps the best illustration of such volatility is the aftermath of a 1996 auction of 30 megahertz of personal communications services (PCS) spectrum known as the C block. The FCC limited eligibility for that auction to designated entities and allowed those entities to borrow money from the FCC to pay for the licenses. Before the auction, CBO estimated that those licenses would sell for about 30 cents per megahertz per person. (That value was equivalent to about 60 percent of the amount paid in an earlier auction of the A and B blocks of PCS spectrum.) But the results of the C-block auction were much higher than estimated—\$10 billion in winning bids, equivalent to more than 80 cents per megahertz per person after adjusting for the favorable financing terms available from the FCC.

Within a year, however, that value appeared too high. Subsequent auctions of PCS spectrum yielded an average value of 33 cents per megahertz per person. Many of the C-block license holders had difficulty obtaining private financing for their operations, and by 1997 it looked as though most of them would be unable to pay what they owed the FCC. The commission responded by offering various forms of financial relief, and most licensees exercised one or more of those options. But two of the largest C-block winners—NextWave and MetroPCS, which together accounted for \$5.8 billion of the original bids—filed for bankruptcy protection instead of choosing some form of administrative relief.² The bankruptcy courts wrote down the value of the NextWave and MetroPCS licenses, voiding all but \$1.2 billion of the two companies' original debt. The FCC subsequently appealed those decisions.

Because the licenses were financed with direct loans from the FCC, the budgetary effects of the C-block auction are measured on a credit reform basis. Under credit reform procedures, the government recorded the auction transactions in three different accounts. The \$10 billion in auction proceeds were recorded in an *offsetting receipts account*. The subsidy cost of the FCC loans, which is measured on a net

1. Congressional Budget Office, *Completing the Transition to Digital Television*, CBO Paper (September 1999).

2. MetroPCS was formerly known as General Wireless, Inc., and GWI PCS.

present-value basis over the life of the loans, was recorded in a *program account* when the loans were issued and is revised as new information becomes available about the likely cash flows from the licensees. A third, nonbudgetary account, known as a *financing account*, records the cash flows for the loans and the subsequent installment payments as they are made.

The net budgetary effect of the C-block auction is the sum of the amounts recorded in the offsetting receipts account and the program account. By the end of fiscal year 1999, the Office of Management and Budget had recorded subsidies of about \$7 billion for loan defaults, suggesting that the net proceeds from all C-block licenses were expected to total approximately \$3 billion.

Now, nearly four years after the auction was held, the market value of some licenses appears to have rebounded close to the amounts originally bid. Moreover, in December 1999, the U.S. Court of Appeals for the Second Circuit overturned the bankruptcy court action in the NextWave case.³ Numerous legal, technical, and economic issues remain to be resolved, but CBO expects the subsidy estimates recorded in the budget to decline to reflect the more favorable outlook for recovering the amounts due on outstanding C-block loans. Such a subsidy reestimate may be recorded in fiscal year 2000, appearing as a negative outlay in the program account.

3. *FCC v. NextWave Personal Communications, Inc.*, F.3d (2d Cir. 1999) [Docket No. 99-5063, December 22, 1999].

How the Economy Affects the Budget

The federal budget is highly sensitive to the economy in various ways. Revenues depend on taxable incomes—including wages and salaries, interest and other nonwage income, and corporate profits—which generally move in step with overall economic activity. Many benefit programs are pegged to inflation, either directly (like Social Security) or indirectly (like Medicare). And the Treasury regularly borrows and refinances the government's debt at market interest rates.

The Congressional Budget Office (CBO) uses three rules of thumb to illustrate some of the links between key economic assumptions and federal budget projections. Those rules are rough orders of magnitude for gauging how changes in individual economic variables—real growth, inflation, and interest rates—taken in isolation will affect the budget totals. In some rules of thumb, the effects may differ according to what future path of discretionary spending is assumed.

The rule for real growth shows the effects of a growth rate that is 0.1 percentage point lower each year than in CBO's baseline, starting in January 2000. The rules for inflation and interest rates assume that those rates are 1 percentage point higher than CBO's baseline, also starting in January 2000. Each rule is roughly symmetrical. Thus, the effects of higher growth, lower inflation, or lower interest rates would be about the same size as the effects shown in this appendix but with the opposite sign.

Variations of 0.1 or 1 percentage point in those variables are used for the sake of simplicity; they do

not represent typical forecasting errors. (For details about the accuracy of CBO's past budget projections, see Chapter 5.) Moreover, readers should be careful about extrapolating from these rules-of-thumb calculations to larger changes because the calculations do not incorporate the impact of large changes on the full range of economic assumptions and budget projections. Furthermore, budget projections are subject to other kinds of errors not directly related to economic forecasting. Developing rules of thumb for those other uncertainties, however, would be very difficult.

Real Growth

Strong economic growth improves the federal budget's bottom line, and weak economic growth worsens it. The first rule of thumb outlines the budgetary impact of economic growth that is slightly weaker than CBO's baseline assumes. Specifically, it illustrates the effects on the budget if the growth of potential gross domestic product (GDP) departs from the baseline. Those effects, however, are not the same as the effects of a cyclical change, such as a recession, because this rule is based on a permanent decline of 0.1 percentage point in real growth instead of a larger, temporary change. (For the effects of a typical recession on 10-year projections, see Box 5-1 on page 104.) Although it is not unreasonable to assume that real growth could be 1 percentage point lower than CBO's baseline over the next few years because of a cyclical change, it does not seem realistic to assume that real growth—

Table C-1.

Effects on the Budget If the Real Rate of Growth Is 0.1 Percentage Point Lower per Year
(By fiscal year, in billions of dollars)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Change in Revenues	-1	-3	-6	-8	-11	-15	-18	-22	-26	-30	-35
Change in Outlays											
Net interest (Debt service)	*	*	*	1	1	2	3	4	6	8	10
Mandatory spending	*	*	*	*	*	*	*	*	*	*	*
Subtotal	*	*	*	1	1	2	3	4	6	8	10
Total Change in Surplus	-1	-3	-6	-9	-13	-17	-21	-26	-32	-38	-46

SOURCE: Congressional Budget Office.

NOTES: Because changes in the rate of economic growth do not affect projections of discretionary spending, these effects would be the same regardless of the assumed path of discretionary spending.

* = less than \$500 million.

unlike interest rates or inflation—could be that different from the baseline for the next 10 years.

The baseline projects real GDP growing by an average of nearly 3 percent a year (see Chapter 2). Subtracting 0.1 percentage point annually from that rate means that by 2010, total GDP would lie roughly 1 percent below CBO's baseline.

Lower growth of GDP would imply lower growth of taxable income, leading to revenue losses that would mount from \$1 billion in 2000 to \$35 billion in 2010 (see Table C-1). By 2010, the loss would equal roughly 1 percent of baseline revenues—on a par with the loss in GDP. In addition, lower growth would mean that the government borrowed more and incurred greater debt-service costs. Altogether, those changes would reduce the projected surplus in 2010 by an estimated \$46 billion compared with CBO's baseline. (Because projections of discretionary spending are not affected by changes in real GDP, the results would be the same under alternative assumptions about discretionary spending.)

Interest Rates

The second rule of thumb illustrates the sensitivity of the budget to interest rates. Although surpluses allow the Treasury to reduce a portion of federal debt held by the public, the Treasury must also roll over some debt at market interest rates. Currently, the bulk of the marketable debt consists of medium- and long-term securities, which were issued with initial maturities of two to 30 years. If interest rates were 1 percentage point higher each year for all maturities than in the baseline (and all other economic variables were unchanged), interest costs would be almost \$4 billion higher in 2000 under all three alternatives for discretionary spending discussed in this report (see Table C-2). That initial boost would be fueled largely by the extra costs of refinancing the government's short-term Treasury bills, which make up about one-fifth of the marketable debt. By 2003, the increase in interest costs would be \$14 billion to \$15 billion (depending on assumptions about discretionary spending).

Surpluses are expected to continue rising after that time, allowing more medium-term securities to be paid down and causing debt held by the public to decline rapidly. During the second half of the decade, the effect of higher interest rates would decrease because of the reduction in short- and medium-term se-

curities (long-term securities would be mostly unaffected during a 10-year projection period). Also, higher rates would boost proceeds from excess cash not used to redeem debt held by the public. By 2010, the effects of those factors would drop to less than \$500 million if discretionary spending grew at the rate

Table C-2.
Effects on the Budget If Interest Rates Are 1 Percentage Point Higher per Year
(By fiscal year, in billions of dollars)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Discretionary Spending Grows at the Rate of Inflation After 2000											
Change in Revenues	0	0	0	0	0	0	0	0	0	0	0
Change in Outlays (Net interest and excess cash)											
Higher rates	4	12	15	15	14	14	13	10	7	4	*
Debt service	*	1	2	3	4	5	6	7	8	9	10
Subtotal	4	13	16	17	18	19	19	17	16	13	10
Total Change in Surplus	-4	-13	-16	-17	-18	-19	-19	-17	-16	-13	-10
Discretionary Spending Is Frozen at the Level Enacted for 2000											
Change in Revenues	0	0	0	0	0	0	0	0	0	0	0
Change in Outlays (Net interest and excess cash)											
Higher rates	4	12	15	14	14	13	11	7	2	-4	-11
Debt service	*	1	2	3	4	5	6	7	8	8	8
Subtotal	4	13	16	17	18	18	17	14	10	4	-3
Total Change in Surplus	-4	-13	-16	-17	-18	-18	-17	-14	-10	-4	3
Discretionary Spending Equals CBO's Estimates of the Caps Through 2002 and Grows at the Rate of Inflation Thereafter											
Change in Revenues	0	0	0	0	0	0	0	0	0	0	0
Change in Outlays (Net interest and excess cash)											
Higher rates	4	12	14	14	13	11	8	3	-3	-9	-18
Debt service	*	1	2	3	4	5	6	6	7	7	6
Subtotal	4	13	16	17	16	16	13	10	4	-3	-11
Total Change in Surplus	-4	-13	-16	-17	-16	-16	-13	-10	-4	3	11

SOURCE: Congressional Budget Office.

NOTE: * = less than \$500 million.

of inflation after 2000 (the inflated baseline). Under other assumptions about discretionary spending (the so-called freeze and capped baselines), higher-than-expected interest rates would actually increase the surplus in 2010 by \$3 billion or \$11 billion, primarily because earnings on excess cash would be greater than projected.

Inflation

The effects that inflation produces on federal revenues and outlays partly offset each other. CBO's third rule of thumb shows the budgetary impact of inflation that is 1 percentage point higher than the baseline projects. If no other economic variables were affected, higher inflation would lead to larger taxable income and hence greater revenues. It would also boost spending, making nearly all benefit programs cost more (although with a lag).

An increase of 1 percentage point in projected inflation each year would increase revenues by \$338 billion in 2010 (see Table C-3). That effect is a little stronger than CBO estimated a year ago because projections of taxable income are higher now (largely because wages and salaries are expected to represent a larger share of GDP).

In the inflated and capped baselines, discretionary spending is assumed to increase at the same rate as inflation for all or part of the projection period. Thus, under those baselines, discretionary programs would cost more if projected inflation was higher. (The effect would be smaller under the capped baseline than under the inflated baseline because discretionary spending would not begin to grow at the rate of inflation until 2002, rather than 2000.) The freeze baseline, by contrast, eliminates the effects of inflation by freezing discretionary spending at its 2000 level, so an increase in projected inflation would have no effect on discretionary programs.

Under each baseline, most of the increase in total outlays would result from higher spending for entitlements and other mandatory programs.

Many of those programs have statutory cost-of-living adjustments that automatically raise spending to keep up with inflation; in other programs, spending grows as prices for the goods and services that the programs provide increase. A 1 percentage-point rise in the annual inflation rate would boost spending for entitlements and other mandatory programs by \$165 billion in 2010, similar to the effect estimated last year.

In deriving this rule of thumb, CBO assumes that nominal interest rates rise in step with inflation, thus increasing the cost of financing the government's debt as well as increasing the proceeds from the government's excess cash. As increasing surpluses reduce the government's need to borrow, higher interest rates will have a progressively smaller impact on the cost of financing the federal debt (and a greater impact on interest received from excess cash). Under each baseline, the impact of higher rates on government outlays begins to decline in 2003.

Also as a result of the diminishing need to borrow, debt-service savings will improve the budget's bottom line. Debt service provides savings of \$60 billion in 2010 under the freeze baseline, \$46 billion under the capped baseline, and \$29 billion under the inflated baseline.

Overall, CBO estimates that an increase of 1 percentage point in the annual rate of inflation would raise total outlays by \$219 billion in 2010 under an inflated baseline. That increase would be smaller in the capped and freeze baselines.

In previous years' estimates of this rule of thumb, higher inflation had relatively little effect on the total budgetary outcome because revenues rose nearly in tandem with outlays. In these projections, however, the additional revenue from higher inflation would exceed the additional spending. As a result, the projected surpluses would increase by \$119 billion (slightly less than 1 percent of GDP) by 2010 under the inflated baseline, \$243 billion (about 1.5 percent of GDP) under the freeze baseline, and \$180 billion (slightly more than 1 percent of GDP) under the capped baseline.

Table C-3.
Effects on the Budget If Inflation Is 1 Percentage Point Higher per Year
(By fiscal year, in billions of dollars)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Discretionary Spending Grows at the Rate of Inflation After 2000											
Change in Revenues	11	32	56	81	108	138	172	208	248	291	338
Change in Outlays											
Net interest and excess cash											
Higher rates	4	12	15	15	14	14	13	10	7	4	*
Debt service	*	-1	-1	-2	-4	-5	-8	-12	-16	-22	-29
Discretionary spending	0	6	13	20	28	36	44	53	62	72	82
Mandatory spending	<u>1</u>	<u>7</u>	<u>17</u>	<u>30</u>	<u>43</u>	<u>59</u>	<u>74</u>	<u>93</u>	<u>115</u>	<u>138</u>	<u>165</u>
Subtotal	5	25	44	62	82	103	123	144	168	192	219
Total Change in Surplus	6	7	12	19	27	35	49	64	80	99	119
Discretionary Spending Is Frozen at the Level Enacted for 2000											
Change in Revenues	11	32	56	81	108	138	172	208	248	291	338
Change in Outlays											
Net interest and excess cash											
Higher rates	4	12	15	14	14	13	11	7	2	-4	-11
Debt service	*	-1	-2	-4	-7	-12	-17	-25	-34	-46	-60
Mandatory spending	<u>1</u>	<u>7</u>	<u>17</u>	<u>30</u>	<u>43</u>	<u>59</u>	<u>74</u>	<u>93</u>	<u>115</u>	<u>138</u>	<u>165</u>
Subtotal	5	19	30	40	50	60	68	75	83	89	95
Total Change in Surplus	6	14	26	42	59	78	105	133	166	203	243
Discretionary Spending Equals CBO's Estimates of the Caps Through 2002 and Grows at the Rate of Inflation Thereafter											
Change in Revenues	11	32	56	81	108	138	172	208	248	291	338
Change in Outlays											
Net interest and excess cash											
Higher rates	4	12	14	14	13	11	8	3	-3	-9	-18
Debt service	*	-1	-2	-4	-7	-10	-14	-20	-27	-36	-46
Discretionary spending	0	0	0	6	12	18	25	32	40	48	56
Mandatory spending	<u>1</u>	<u>7</u>	<u>17</u>	<u>30</u>	<u>43</u>	<u>59</u>	<u>74</u>	<u>93</u>	<u>115</u>	<u>138</u>	<u>165</u>
Subtotal	5	19	30	45	61	78	92	108	125	141	158
Total Change in Surplus	6	14	26	36	48	60	80	100	124	151	180

SOURCE: Congressional Budget Office.

NOTE: * = less than \$500 million.

The Federal Sector of the National Income and Product Accounts

The federal budget is not the only mechanism for gauging the effect of federal government revenues and spending on the economy. That effect can also be seen through the official national income and product accounts (NIPAs) produced by the Commerce Department's Bureau of Economic Analysis (BEA). The NIPAs provide a picture of government activity in terms of production, distribution, and use of output. They recast the government's transactions into categories that affect gross domestic product, income, and other macroeconomic totals, thereby helping to trace the relationship between the federal sector and other areas of the economy.

Because of the uncertain direction of policy related to discretionary spending, the Congressional Budget Office (CBO) has used three different assumptions about the path of that spending in this report. The numbers in Tables D-1 and D-2 reflect CBO's budget projections assuming that discretionary spending grows with inflation from 2001 through 2010. In Chapters 1 and 4, CBO has also presented two other sets of projections: in one, discretionary spending equals CBO's estimates of the statutory caps through 2002 and grows with the rate of inflation thereafter; in the other, budget authority for discretionary programs is frozen at the level in 2000. CBO has not translated those other two baselines into NIPA terms; however, the lower projected discretionary spending in each would result in lower projections of defense purchases, nondefense purchases, and grants in the NIPAs. Net

interest costs would also be lower under those two assumptions because of reduced levels of debt.

Relationship Between the Budget and the NIPAs

A number of major differences distinguish the treatment of federal receipts and expenditures in the NIPAs from their treatment in the unified budget. For example, the NIPAs shift selected dollars from the spending to the receipt side of the ledger to reflect intrabudgetary or voluntary payments that the budget records as negative outlays. Such shifts are referred to as *netting and grossing* adjustments and do not affect the surplus or deficit (see Table D-1).

By contrast, other differences between the NIPAs and the federal budget do affect the surplus or deficit. The NIPA totals exclude government transactions that involve the transfer of existing assets and liabilities and therefore do not contribute to current income and production. Prominent among such *lending and financial* adjustments are those for deposit insurance outlays, cash flows for direct loans made by the government before credit reform, and sales of government assets. Other factors that separate NIPA accounting from budget accounting include *geographic adjustments* (the exclusion of Puerto Rico, the Virgin Is-

lands, and a few other areas from the national economic statistics) and *timing adjustments* (such as correcting for irregular numbers of benefit checks or paychecks in the budget because certain pay dates fall on a weekend or holiday).

The NIPAs and the unified budget also differ in their *treatment of investment and capital consumption*. The unified budget reflects all expenditures of the federal government, including investment purchases of such items as buildings and aircraft carriers. The NIPA budget shows the current, or operating, account for the federal government; consequently, it excludes government investment and includes the government's consumption of fixed capital (depreciation). (Government investment, though included in the calculation of gross domestic product, is not included in the calculation of budget outlays and is therefore not part of the government sector of the NIPA budget.)

In addition to netting and grossing differences, geographic adjustments, contributions for government employee retirement, excise timing adjustments, Universal Service Fund receipts, and estate and gift taxes, NIPA receipts can diverge from those reported in the unified budget for other reasons. For example, the budget counts receipts from corporate income taxes when they are paid, whereas the NIPA counts such taxes when the liability is accrued. Because the tax liability can accrue in fiscal years before the payment is made, receipts are reported in the budget and in the NIPAs at different times. CBO typically associates such timing differences with the "other" differences category (see Table D-1). In some years, differences not related to timing adjustments have resulted in subsequent revisions to BEA's initial release of NIPA receipts.

NIPA Receipts and Expenditures

The federal sector of the NIPAs generally classifies receipts according to their source (see Table D-2). The leading source of government receipts in the 2000-2010 period is taxes and fees paid by individuals. Following that category are contributions (includ-

ing premiums) for social insurance, such as Social Security, Medicare, unemployment insurance, and government employee retirement. The remaining categories are accruals of taxes on corporate profits, including the earnings of the Federal Reserve System, and accruals of indirect business taxes (chiefly excise taxes) and nontax accruals (chiefly fees).

Government expenditures are classified according to their purpose and destination. Defense and non-defense consumption of goods and services represents purchases made by the government for immediate use. The largest share of current consumption is compensation of federal employees. Consumption of fixed government capital is the use the government gets from its fixed assets.

Transfer payments are cash payments made directly to people or foreign nations. Grants-in-aid are payments that the federal government makes to state or local governments, which then use them for transfers (such as paying Medicaid benefits), consumption (such as hiring additional police officers), or investment (such as building highways).

Although both the unified budget and the NIPAs contain a category labeled "net interest," the NIPA figure is bigger. A variety of differences cause the two measures to diverge. The largest difference is the contrasting treatment of interest received by the Civil Service and Military Retirement funds. In the unified budget, such receipts offset the payments made by the Treasury. In the NIPAs, those receipts have been reclassified as contributions to personal income and are no longer included in the government accounts.

The NIPA category labeled "subsidies less current surplus of government enterprises" contains two components, as its name suggests. The first—subsidies—is defined as monetary grants paid by government to businesses, including state and local government enterprises. Subsidies are dominated by housing assistance.

The second part of the category is the current surplus of government enterprises, which are certain business-type operations of the government, such as the Postal Service. The operating costs of government enterprises are mostly covered by the sale of goods

and services to the public rather than by tax receipts. The difference between sales and current operating expenses is the enterprise's surplus or deficit. *Government enterprises* should not be confused with *government-sponsored enterprises* (GSEs), which are private entities established and chartered by the federal government to perform specific financial functions, usually under the supervision of a government agency. Examples of GSEs include Fannie Mae and the Student Loan Marketing Association (Sallie Mae). As privately owned organizations, GSEs are not included in the budget or in the federal sector of the NIPAs.

Comprehensive Revisions of the NIPAs

The Bureau of Economic Analysis has recently revised the NIPAs to improve the depiction of the U.S. economy. Those revisions have resulted in changes in the classification of certain government programs within the NIPA categories.

Of the major revisions, only the reclassification of government contributions to federal employees' retirement affects both NIPA receipts and expenditures. Previously, the NIPAs treated outlays for Civil Service and Military Retirement as transfer payments. The contributions received by those retirement funds on behalf of their employees are recorded as offsetting receipts on the outlay side of the budget and therefore required a netting and grossing adjustment to shift those dollars to the receipt side of the ledger. Interest

received on the holdings of those trust funds reduced the net interest total.

Under the new NIPA treatment, receipts and interest received by the retirement plans will be considered personal income rather than government receipts. Outlays from the funds that were formerly considered transfer payments will now be treated as transactions outside of the government sector of the economy (see Table D-1).

BEA has also reclassified grants to state and local governments for highways, transit, air transportation, and water treatment plants as capital transfers. BEA defines capital transfers as transactions in which one party provides something (usually cash) to another party without receiving anything in return. Those transactions are linked to, or are conditional upon, the acquisition or disposition of an asset.¹ Because such transactions transfer existing assets from one party to another, they do not affect disposable income or production in the current period. Therefore, the NIPAs, which only record transactions that affect current production, no longer count them in the totals. Similarly, estate and gift taxes, which were formerly shown as NIPA receipts, are now also treated as capital transfers. The reclassifications to capital transfers more closely align the NIPAs with international guidelines for national economic accounts.

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1. Brent R. Moulton, Robert P. Parker, and Eugene P. Seskin, "A Preview of the 1999 Comprehensive Revision of the National Income and Product Accounts," *Survey of Current Business* (August 1999).

Table D-1.**Relationship of the Budget to the Federal Sector of the National Income and Product Accounts (By fiscal year, in billions of dollars)**

	Actual 1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Receipts												
Revenue (Budget basis) ^a	1,827	1,945	2,016	2,096	2,177	2,263	2,361	2,465	2,572	2,686	2,813	2,946
Differences												
Netting and grossing												
Medicare premiums	22	22	23	25	28	31	34	37	40	43	47	51
Deposit insurance premiums	*	*	*	*	*	*	*	*	*	*	*	*
Other	5	5	7	6	6	4	3	2	2	2	1	*
Geographic adjustments	-3	-3	-4	-4	-4	-4	-4	-4	-4	-5	-5	-5
Contributions for government employee retirement	-4	-4	-4	-4	-4	-4	-3	-3	-3	-3	-3	-3
Excise timing adjustments	-5	0	0	0	0	0	0	0	0	0	0	0
Universal Service Fund receipts	-4	-5	-5	-5	-7	-11	-12	-12	-12	-12	-12	-12
Estate and gift taxes	-28	-30	-32	-33	-35	-36	-37	-38	-40	-42	-45	-48
Other	29	8	13	10	9	10	11	11	14	14	15	16
Total	12	-7	-1	-5	-7	-11	-8	-6	-3	-2	-1	b
Receipts (NIPA basis)	1,839	1,938	2,015	2,091	2,170	2,252	2,354	2,459	2,569	2,684	2,812	2,946
Expenditures												
Outlays (Budget basis) ^a	1,703	1,769	1,839	1,888	1,950	2,017	2,093	2,140	2,204	2,287	2,369	2,457
Differences												
Netting and grossing												
Medicare premiums	22	22	23	25	28	31	34	37	40	43	47	51
Deposit insurance premiums	*	*	*	*	*	*	*	*	*	*	*	*
Other	5	5	7	6	6	4	3	2	2	2	1	*
Geographic adjustments	-9	-10	-10	-11	-11	-12	-12	-13	-13	-14	-14	-15
Lending and financial transactions	10	10	8	10	10	8	6	7	9	9	9	9
Contributions for government employee retirement	45	45	47	49	50	52	53	54	56	57	59	61
Capital transfers	-31	-34	-36	-37	-38	-38	-39	-40	-40	-40	-41	-42
Treatment of investment and capital consumption	-7	-11	-11	-10	-13	-16	-19	-23	-26	-29	-32	-35
Defense timing adjustment	1	3	2	2	1	1	0	0	0	0	0	0
Mandatory timing adjustments	0	-2	6	-4	0	0	14	-5	-8	0	0	0
Universal Service Fund payments	-3	-4	-5	-5	-6	-11	-12	-12	-12	-12	-12	-12
Other	3	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2
Total	34	22	30	23	26	16	28	8	6	15	15	16
Expenditures (NIPA basis)	1,737	1,791	1,869	1,911	1,976	2,033	2,121	2,148	2,210	2,302	2,384	2,473

Table D-1.
Continued

	Actual 1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Surplus												
Surplus (Budget basis) ^a	124	176	177	209	227	246	268	325	368	399	444	489
Differences												
Geographic adjustments	6	6	7	7	7	8	8	8	9	9	10	10
Lending and financial transactions	-10	-10	-8	-10	-10	-8	-6	-7	-9	-9	-9	-9
Contributions for government employee retirement	-49	-50	-52	-53	-54	-55	-57	-58	-59	-60	-62	-63
Capital transfers	31	34	36	37	38	38	39	40	40	40	41	42
Treatment of investment and capital consumption	7	11	11	10	13	16	19	23	26	29	32	35
Defense timing adjustment	-1	-3	-2	-2	-1	-1	0	0	0	0	0	0
Excise and other timing adjustments	-5	2	-6	4	0	0	-14	5	8	0	0	0
Universal Service Fund payments	*	*	*	*	-1	-1	*	0	0	0	0	0
Estate and gift taxes	-28	-30	-32	-33	-35	-36	-37	-38	-40	-42	-45	-48
Other	<u>27</u>	<u>11</u>	<u>15</u>	<u>12</u>	<u>10</u>	<u>12</u>	<u>12</u>	<u>13</u>	<u>15</u>	<u>15</u>	<u>17</u>	<u>18</u>
Total	-22	-29	-31	-28	-32	-26	-35	-14	-10	-17	-16	-16
Surplus (NIPA basis)	102	148	146	180	194	219	233	311	359	382	427	473

SOURCE: Congressional Budget Office.

NOTES: These numbers reflect CBO's inflated baseline, which assumes that discretionary spending grows at the rate of inflation after 2000.

* = less than \$500 million.

a. Includes Social Security and the Postal Service.

Table D-2.**Projections of Baseline Receipts and Expenditures Measured by the National Income and Product Accounts (By fiscal year, in billions of dollars)**

	Actual 1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Receipts												
Personal Tax and Nontax Receipts	886	939	981	1,023	1,065	1,109	1,160	1,215	1,273	1,337	1,405	1,478
Corporate Profits Tax Accruals	214	217	214	212	215	219	226	235	245	254	264	274
Indirect Business Tax and Nontax Accruals	100	102	108	111	114	116	119	122	124	128	132	135
Contributions for Social Insurance	<u>638</u>	<u>680</u>	<u>712</u>	<u>745</u>	<u>776</u>	<u>808</u>	<u>849</u>	<u>887</u>	<u>927</u>	<u>966</u>	<u>1,011</u>	<u>1,058</u>
Total	1,839	1,938	2,015	2,091	2,170	2,252	2,354	2,459	2,569	2,684	2,812	2,946
Expenditures												
Purchases of Goods and Services												
Defense												
Consumption	243	250	262	268	277	283	293	297	302	312	320	328
Consumption of fixed capital	62	63	64	64	65	65	65	66	66	67	68	69
Nondefense												
Consumption	139	144	152	155	158	159	160	162	164	167	169	172
Consumption of fixed capital	<u>22</u>	<u>24</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>30</u>	<u>31</u>	<u>32</u>	<u>34</u>	<u>35</u>	<u>37</u>	<u>38</u>
Subtotal	467	481	503	515	527	537	550	558	566	581	594	607
Transfer Payments												
Domestic	737	761	811	835	885	931	1,005	1,022	1,074	1,148	1,214	1,286
Foreign	<u>11</u>	<u>12</u>	<u>13</u>	<u>13</u>	<u>14</u>	<u>14</u>	<u>15</u>	<u>15</u>	<u>15</u>	<u>15</u>	<u>16</u>	<u>16</u>
Subtotal	748	773	824	849	899	945	1,019	1,037	1,089	1,163	1,230	1,302
Grants-in-Aid to State and Local Governments	220	236	255	269	284	300	317	336	356	377	401	426
Net Interest ^a	266	257	254	245	231	216	199	182	163	143	121	97
Subsidies Less Current Surplus of Government Enterprises	<u>36</u>	<u>44</u>	<u>32</u>	<u>33</u>	<u>34</u>	<u>34</u>	<u>34</u>	<u>35</u>	<u>35</u>	<u>37</u>	<u>39</u>	<u>41</u>
Total	1,737	1,791	1,869	1,911	1,976	2,033	2,121	2,148	2,210	2,302	2,384	2,473
Surplus												
Surplus	102	148	146	180	194	219	233	311	359	382	427	473

SOURCE: Congressional Budget Office.

a. Includes proceeds from investing excess cash.

Historical Budget Data

This appendix provides historical data for revenues, outlays, and the deficit or surplus. Estimates of the standardized-budget deficit or surplus and its revenue and outlay components for fiscal years 1960 through 1999 are reported in Tables E-1 through E-3, along with estimates of potential gross domestic product (GDP), actual GDP, and the nonaccelerating inflation rate of unemployment (NAIRU). The standardized-budget measure and its components are also shown as a percentage of potential GDP.

The change in the standardized-budget deficit or surplus is a commonly used measure of the short-term impact of fiscal policy on total demand.¹ The standardized-budget deficit, which is often called the structural deficit, excludes the effects on revenues and outlays of cyclical fluctuations in output and unemployment and makes other adjustments. Historical estimates for standardized-budget revenues, outlays, and the deficit or surplus have been revised. An explanation of those revisions is forthcoming in a Congressional Budget Office publication.

Budget data consistent with the projections in Chapters 1, 3, and 4 are available for fiscal years 1962 through 1999 and are reported in Tables E-4 through E-13. The data are shown both in nominal dollars and as a percentage of GDP. Data for 1999 come from the Department of the Treasury, *Final Monthly Treasury Statement* (October 1999).

Federal revenues, outlays, the deficit or surplus, and debt held by the public are shown in Tables E-4 and E-5. Revenues, outlays, and the deficit or surplus have both on-budget and off-budget components. Social Security receipts and outlays were placed off-budget by the Balanced Budget and Emergency Deficit Control Act of 1985; the Postal Service was moved off-budget four years later by the Omnibus Budget Reconciliation Act of 1989.

The major sources of federal revenues (including off-budget revenues) are presented in Tables E-6 and E-7. Social insurance taxes include payments by employers and employees for Social Security, Medicare, Railroad Retirement, and unemployment insurance, as well as pension contributions by federal workers. Excise taxes are levied on certain products and services such as gasoline, alcoholic beverages, and air travel. Miscellaneous receipts consist of deposits of earnings by the Federal Reserve System and numerous fees and charges.

Total outlays for major spending categories are shown in Tables E-8 and E-9. (Those totals include both on- and off-budget outlays.) To compare historical outlays with the projections in Chapters 1, 3, and 4, the historical data have been divided into the same categories of spending as the projections. Spending controlled by the appropriation process is classified as discretionary. Tables E-10 and E-11 divide discretionary spending into its defense, international, and domestic components. Entitlements and other mandatory spending include programs whose spending is

1. In previous reports, this measure was referred to as the standardized-employment deficit or surplus.

governed by laws that set requirements for eligibility. Additional detail on entitlement programs is shown in Tables E-12 and E-13. Net interest is identical to the budget function of the same name (function 900). Offsetting receipts include the federal government's

contribution to retirement programs for its employees, fees and charges such as Medicare premiums, and receipts from the use of federally controlled land and offshore territory.

Table E-1.
Deficits, Surpluses, Debt, and Related Series, Fiscal Years 1960-1999

	In Billions of Dollars			As a Percentage of GDP			GDP (Billions of dollars)		NAIRU ^d (Percent)
	Deficit (-) or Surplus	Standardized- Budget Deficit (-) or Surplus ^a	Debt Held by the Public	Deficit (-) or Surplus	Standardized- Budget Deficit (-) or Surplus ^{a,b}	Debt Held by the Public	Actual ^c	Potential	
1960	*	1	237	0.1	0.2	45.6	520	521	5.5
1961	-3	3	238	-0.6	0.6	44.9	531	549	5.5
1962	-7	-4	248	-1.3	-0.6	43.6	569	577	5.5
1963	-5	-3	254	-0.8	-0.5	42.3	600	608	5.5
1964	-6	-5	257	-0.9	-0.8	40.0	642	641	5.6
1965	-1	-3	261	-0.2	-0.5	37.9	688	678	5.6
1966	-4	-12	264	-0.5	-1.6	34.8	757	723	5.7
1967	-9	-19	267	-1.1	-2.4	32.8	812	780	5.8
1968	-25	-29	290	-2.9	-3.4	33.3	870	844	5.8
1969	3	-9	278	0.3	-1.0	29.3	949	919	5.8
1970	-3	-6	283	-0.3	-0.6	27.9	1,014	1,005	5.9
1971	-23	-9	303	-2.1	-0.8	28.0	1,082	1,094	5.9
1972	-23	-18	322	-2.0	-1.5	27.4	1,178	1,185	6.0
1973	-15	-18	341	-1.1	-1.4	26.0	1,314	1,280	6.1
1974	-6	1	344	-0.4	0.1	23.8	1,442	1,419	6.2
1975	-53	-5	395	-3.4	-0.3	25.3	1,559	1,615	6.2
1976	-74	-36	477	-4.2	-2.0	27.5	1,736	1,789	6.2
1977	-54	-12	549	-2.7	-0.6	27.8	1,975	2,008	6.2
1978	-59	-31	607	-2.7	-1.4	27.4	2,219	2,219	6.3
1979	-41	-15	640	-1.6	-0.6	25.6	2,505	2,477	6.3
1980	-74	-18	710	-2.7	-0.7	26.0	2,732	2,776	6.2
1981	-79	-17	785	-2.6	-0.5	25.7	3,060	3,129	6.2
1982	-128	-47	920	-4.0	-1.4	28.5	3,231	3,432	6.1
1983	-208	-120	1,132	-6.0	-3.2	32.9	3,442	3,682	6.1
1984	-185	-147	1,300	-4.8	-3.7	33.8	3,847	3,929	6.1
1985	-212	-178	1,500	-5.1	-4.3	36.2	4,142	4,181	6.0
1986	-221	-213	1,737	-5.0	-4.8	39.5	4,398	4,420	6.0
1987	-150	-159	1,889	-3.2	-3.4	40.6	4,654	4,686	6.0
1988	-155	-129	2,051	-3.1	-2.6	40.9	5,017	4,992	5.9
1989	-152	-115	2,190	-2.8	-2.2	40.5	5,407	5,348	5.9
1990	-221	-120	2,411	-3.9	-2.1	42.0	5,738	5,718	5.9
1991	-269	-156	2,688	-4.5	-2.6	45.3	5,928	6,093	5.8
1992	-290	-191	2,999	-4.7	-3.0	48.2	6,222	6,393	5.7
1993	-255	-172	3,247	-3.9	-2.6	49.5	6,561	6,719	5.6
1994	-203	-140	3,432	-2.9	-2.0	49.4	6,949	7,052	5.4
1995	-164	-138	3,603	-2.2	-1.9	49.2	7,323	7,399	5.3
1996	-108	-93	3,733	-1.4	-1.2	48.5	7,700	7,764	5.2
1997	-22	-75	3,771	-0.3	-0.9	46.1	8,183	8,138	5.2
1998	69	-35	3,720	0.8	-0.4	43.1	8,636	8,503	5.2
1999	124	-2	3,633	1.4	**	39.9	9,116	8,899	5.2

SOURCES: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis.

NOTE: * = less than \$500 million; ** = less than 0.05 percent.

- Excludes deposit insurance, receipts from auctions of the electromagnetic spectrum, timing adjustments, and contributions from allied nations for Operation Desert Storm (which were received in 1991 and 1992).
- Shown as a percentage of potential GDP.
- CBO calculated fiscal year numbers from quarterly national income and product account data from the Bureau of Economic Analysis.
- The NAIRU is the nonaccelerating inflation rate of unemployment. It is the benchmark for computing potential GDP.

Table E-2.
Standardized-Budget Deficit or Surplus and Related Series, Fiscal Years 1960-1999
(In billions of dollars)

	Budget Deficit (-) or Surplus	Cyclical Deficit (-) or Surplus	Other Adjustments ^a	Standardized-Budget		
				Deficit (-) or Surplus	Revenues	Outlays
1960	*	*	*	1	91	90
1961	-3	6	1	3	98	94
1962	-7	3	1	-4	100	104
1963	-5	2	*	-3	107	110
1964	-6	-1	1	-5	110	115
1965	-1	-3	2	-3	112	115
1966	-4	-11	3	-12	118	130
1967	-9	-11	*	-19	134	153
1968	-25	-9	5	-29	141	171
1969	3	-12	*	-9	164	174
1970	-3	-5	2	-6	178	184
1971	-23	4	10	-9	187	196
1972	-23	1	4	-18	201	220
1973	-15	-11	8	-18	216	234
1974	-6	-9	17	1	252	250
1975	-53	17	31	-5	293	298
1976	-74	23	15	-36	307	343
1977	-54	13	29	-12	357	369
1978	-59	*	28	-31	392	423
1979	-41	-10	35	-15	446	461
1980	-74	14	42	-18	515	533
1981	-79	24	38	-17	606	622
1982	-128	59	22	-47	652	699
1983	-208	79	10	-120	644	763
1984	-185	27	12	-147	669	816
1985	-212	14	20	-178	721	900
1986	-221	8	-1	-213	747	961
1987	-150	8	-17	-159	809	968
1988	-155	-9	35	-129	868	997
1989	-152	-19	57	-115	937	1,052
1990	-221	-8	109	-120	992	1,113
1991	-269	49	65	-156	1,068	1,224
1992	-290	65	34	-191	1,122	1,313
1993	-255	58	25	-172	1,170	1,342
1994	-203	38	26	-140	1,254	1,393
1995	-164	21	5	-138	1,345	1,473
1996	-108	20	-6	-93	1,422	1,515
1997	-22	-12	-41	-75	1,499	1,574
1998	69	-45	-60	-35	1,595	1,630
1999	124	-72	-55	-2	1,668	1,670

SOURCE: Congressional Budget Office.

NOTE: * = less than \$500 million.

a. Consists of deposit insurance, receipts from auctions of the electromagnetic spectrum, timing adjustments, and contributions from allied nations for Operation Desert Storm (which were received in 1991 and 1992).

Table E-3.
Standardized-Budget Deficit or Surplus and Related Series, Fiscal Years 1960-1999
(As a percentage of potential GDP)

	Budget Deficit (-) or Surplus ^a	Cyclical Deficit (-) or Surplus	Other Adjustments ^b	Standardized-Budget		
				Deficit (-) or Surplus	Revenues	Outlays
1960	0.1	*	0.1	0.2	17.5	17.3
1961	-0.6	1.1	0.1	0.6	17.8	17.2
1962	-1.3	0.5	0.1	-0.6	17.3	17.9
1963	-0.8	0.4	-0.1	-0.5	17.6	18.0
1964	-0.9	-0.1	0.2	-0.8	17.2	18.0
1965	-0.2	-0.5	0.3	-0.5	16.4	16.9
1966	-0.5	-1.5	0.4	-1.6	16.3	17.9
1967	-1.1	-1.4	0.1	-2.4	17.2	19.6
1968	-2.9	-1.1	0.6	-3.4	16.8	20.2
1969	0.3	-1.3	*	-1.0	17.9	18.9
1970	-0.3	-0.5	0.2	-0.6	17.7	18.3
1971	-2.1	0.3	0.9	-0.8	17.1	17.9
1972	-2.0	0.1	0.3	-1.5	17.0	18.5
1973	-1.1	-0.9	0.6	-1.4	16.9	18.3
1974	-0.4	-0.7	1.2	0.1	17.7	17.6
1975	-3.4	1.0	1.9	-0.3	18.1	18.5
1976	-4.2	1.3	0.8	-2.0	17.2	19.2
1977	-2.7	0.7	1.4	-0.6	17.8	18.4
1978	-2.7	*	1.3	-1.4	17.6	19.0
1979	-1.6	-0.4	1.4	-0.6	18.0	18.6
1980	-2.7	0.5	1.5	-0.7	18.6	19.2
1981	-2.6	0.8	1.2	-0.5	19.4	19.9
1982	-4.0	1.7	0.6	-1.4	19.0	20.4
1983	-6.0	2.1	0.3	-3.2	17.5	20.7
1984	-4.8	0.7	0.3	-3.7	17.0	20.8
1985	-5.1	0.3	0.5	-4.3	17.2	21.5
1986	-5.0	0.2	*	-4.8	16.9	21.7
1987	-3.2	0.2	-0.4	-3.4	17.3	20.7
1988	-3.1	-0.2	0.7	-2.6	17.4	20.0
1989	-2.8	-0.4	1.1	-2.2	17.5	19.7
1990	-3.9	-0.1	1.9	-2.1	17.4	19.5
1991	-4.5	0.8	1.1	-2.6	17.5	20.1
1992	-4.7	1.0	0.5	-3.0	17.5	20.5
1993	-3.9	0.9	0.4	-2.6	17.4	20.0
1994	-2.9	0.5	0.4	-2.0	17.8	19.8
1995	-2.2	0.3	0.1	-1.9	18.0	19.9
1996	-1.4	0.3	-0.1	-1.2	18.3	19.5
1997	-0.3	-0.2	-0.5	-0.9	18.4	19.3
1998	0.8	-0.5	-0.7	-0.4	18.8	19.2
1999	1.4	-0.8	-0.6	*	18.7	18.8

SOURCE: Congressional Budget Office.

NOTE: * = less than 0.05 percent.

a. Shown as a percentage of actual GDP.

b. Consists of deposit insurance, receipts from auctions of the electromagnetic spectrum, timing adjustments, and contributions from allied nations for Operation Desert Storm (which were received in 1991 and 1992).

Table E-4.**Revenues, Outlays, Deficits, Surpluses, and Debt Held by the Public, Fiscal Years 1962-1999**
(In billions of dollars)

	Revenues	Outlays	Deficit (-) or Surplus			Total	Debt Held by the Public ^b
			On-Budget ^a	Social Security	Postal Service ^a		
1962	99.7	106.8	-5.9	-1.3	n.a.	-7.1	248.0
1963	106.6	111.3	-4.0	-0.8	n.a.	-4.8	254.0
1964	112.6	118.5	-6.5	0.6	n.a.	-5.9	256.8
1965	116.8	118.2	-1.6	0.2	n.a.	-1.4	260.8
1966	130.8	134.5	-3.1	-0.6	n.a.	-3.7	263.7
1967	148.8	157.5	-12.6	4.0	n.a.	-8.6	266.6
1968	153.0	178.1	-27.7	2.6	n.a.	-25.2	289.5
1969	186.9	183.6	-0.5	3.7	n.a.	3.2	278.1
1970	192.8	195.6	-8.7	5.9	n.a.	-2.8	283.2
1971	187.1	210.2	-26.1	3.0	n.a.	-23.0	303.0
1972	207.3	230.7	-26.4	3.0	n.a.	-23.4	322.4
1973	230.8	245.7	-15.4	0.5	n.a.	-14.9	340.9
1974	263.2	269.4	-8.0	1.8	n.a.	-6.1	343.7
1975	279.1	332.3	-55.3	2.0	n.a.	-53.2	394.7
1976	298.1	371.8	-70.5	-3.2	n.a.	-73.7	477.4
1977	355.6	409.2	-49.8	-3.9	n.a.	-53.7	549.1
1978	399.6	458.7	-54.9	-4.3	n.a.	-59.2	607.1
1979	463.3	504.0	-38.7	-2.0	n.a.	-40.7	640.3
1980	517.1	590.9	-72.7	-1.1	n.a.	-73.8	709.8
1981	599.3	678.2	-74.0	-5.0	n.a.	-79.0	785.3
1982	617.8	745.8	-120.1	-7.9	n.a.	-128.0	919.8
1983	600.6	808.4	-208.0	0.2	n.a.	-207.8	1,131.6
1984	666.5	851.9	-185.7	0.3	n.a.	-185.4	1,300.5
1985	734.1	946.4	-221.7	9.4	n.a.	-212.3	1,499.9
1986	769.2	990.5	-238.0	16.7	n.a.	-221.2	1,736.7
1987	854.4	1,004.1	-169.3	19.6	n.a.	-149.8	1,888.7
1988	909.3	1,064.5	-194.0	38.8	n.a.	-155.2	2,050.8
1989	991.2	1,143.7	-205.2	52.4	0.3	-152.5	2,189.9
1990	1,032.0	1,253.2	-277.8	58.2	-1.6	-221.2	2,410.7
1991	1,055.0	1,324.4	-321.6	53.5	-1.3	-269.4	2,688.1
1992	1,091.3	1,381.7	-340.5	50.7	-0.7	-290.4	2,998.8
1993	1,154.4	1,409.5	-300.5	46.8	-1.4	-255.1	3,247.5
1994	1,258.6	1,461.9	-258.9	56.8	-1.1	-203.3	3,432.1
1995	1,351.8	1,515.8	-226.4	60.4	2.0	-164.0	3,603.4
1996	1,453.1	1,560.6	-174.1	66.4	0.2	-107.5	3,733.0
1997	1,579.3	1,601.3	-103.4	81.3	*	-22.0	3,771.1
1998	1,721.8	1,652.6	-30.0	99.0	0.2	69.2	3,719.9
1999	1,827.5	1,703.0	0.7	124.7	-1.0	124.4	3,633.3

SOURCE: Congressional Budget Office.

NOTE: n.a. = not applicable; * = less than \$500 million.

a. In fiscal years 1962 through 1988, the Postal Service was on-budget and included in the on-budget total.

b. End of year.

Table E-5.
Revenues, Outlays, Deficits, Surpluses, and Debt Held by the Public, Fiscal Years 1962-1999
(As a percentage of GDP)

	Revenues	Outlays	Deficit (-) or Surplus			Total	Debt Held by the Public ^b
			On-Budget ^a	Social Security	Postal Service ^a		
1962	17.5	18.8	-1.0	-0.2	n.a.	-1.3	43.6
1963	17.8	18.5	-0.7	-0.1	n.a.	-0.8	42.3
1964	17.5	18.5	-1.0	0.1	n.a.	-0.9	40.0
1965	17.0	17.2	-0.2	*	n.a.	-0.2	37.9
1966	17.3	17.8	-0.4	-0.1	n.a.	-0.5	34.8
1967	18.3	19.4	-1.6	0.5	n.a.	-1.1	32.8
1968	17.6	20.5	-3.2	0.3	n.a.	-2.9	33.3
1969	19.7	19.3	-0.1	0.4	n.a.	0.3	29.3
1970	19.0	19.3	-0.9	0.6	n.a.	-0.3	27.9
1971	17.3	19.4	-2.4	0.3	n.a.	-2.1	28.0
1972	17.6	19.6	-2.2	0.3	n.a.	-2.0	27.4
1973	17.6	18.7	-1.2	*	n.a.	-1.1	26.0
1974	18.3	18.7	-0.6	0.1	n.a.	-0.4	23.8
1975	17.9	21.3	-3.5	0.1	n.a.	-3.4	25.3
1976	17.2	21.4	-4.1	-0.2	n.a.	-4.2	27.5
1977	18.0	20.7	-2.5	-0.2	n.a.	-2.7	27.8
1978	18.0	20.7	-2.5	-0.2	n.a.	-2.7	27.4
1979	18.5	20.1	-1.5	-0.1	n.a.	-1.6	25.6
1980	18.9	21.6	-2.7	*	n.a.	-2.7	26.0
1981	19.6	22.2	-2.4	-0.2	n.a.	-2.6	25.7
1982	19.1	23.1	-3.7	-0.2	n.a.	-4.0	28.5
1983	17.4	23.5	-6.0	*	n.a.	-6.0	32.9
1984	17.3	22.1	-4.8	*	n.a.	-4.8	33.8
1985	17.7	22.9	-5.4	0.2	n.a.	-5.1	36.2
1986	17.5	22.5	-5.4	0.4	n.a.	-5.0	39.5
1987	18.4	21.6	-3.6	0.4	n.a.	-3.2	40.6
1988	18.1	21.2	-3.9	0.8	n.a.	-3.1	40.9
1989	18.3	21.2	-3.8	1.0	*	-2.8	40.5
1990	18.0	21.8	-4.8	1.0	*	-3.9	42.0
1991	17.8	22.3	-5.4	0.9	*	-4.5	45.3
1992	17.5	22.2	-5.5	0.8	*	-4.7	48.2
1993	17.6	21.5	-4.6	0.7	*	-3.9	49.5
1994	18.1	21.0	-3.7	0.8	*	-2.9	49.4
1995	18.5	20.7	-3.1	0.8	*	-2.2	49.2
1996	18.9	20.3	-2.3	0.9	*	-1.4	48.5
1997	19.3	19.6	-1.3	1.0	*	-0.3	46.1
1998	19.9	19.1	-0.3	1.1	*	0.8	43.1
1999	20.0	18.7	*	1.4	*	1.4	39.9

SOURCE: Congressional Budget Office.

NOTE: n.a. = not applicable; * = less than 0.05 percent.

a. In fiscal years 1962 through 1988, the Postal Service was on-budget and included in the on-budget total.

b. End of year.

Table E-6.
Revenues by Major Source, Fiscal Years 1962-1999 (In billions of dollars)

	Individual Income Taxes	Corporate Income Taxes	Social Insurance Taxes	Excise Taxes	Estate and Gift Taxes	Customs Duties	Miscel- laneous Receipts	Total Revenues
1962	45.6	20.5	17.0	12.5	2.0	1.1	0.8	99.7
1963	47.6	21.6	19.8	13.2	2.2	1.2	1.0	106.6
1964	48.7	23.5	22.0	13.7	2.4	1.3	1.1	112.6
1965	48.8	25.5	22.2	14.6	2.7	1.4	1.6	116.8
1966	55.4	30.1	25.5	13.1	3.1	1.8	1.9	130.8
1967	61.5	34.0	32.6	13.7	3.0	1.9	2.1	148.8
1968	68.7	28.7	33.9	14.1	3.1	2.0	2.5	153.0
1969	87.2	36.7	39.0	15.2	3.5	2.3	2.9	186.9
1970	90.4	32.8	44.4	15.7	3.6	2.4	3.4	192.8
1971	86.2	26.8	47.3	16.6	3.7	2.6	3.9	187.1
1972	94.7	32.2	52.6	15.5	5.4	3.3	3.6	207.3
1973	103.2	36.2	63.1	16.3	4.9	3.2	3.9	230.8
1974	119.0	38.6	75.1	16.8	5.0	3.3	5.4	263.2
1975	122.4	40.6	84.5	16.6	4.6	3.7	6.7	279.1
1976	131.6	41.4	90.8	17.0	5.2	4.1	8.0	298.1
1977	157.6	54.9	106.5	17.5	7.3	5.2	6.5	355.6
1978	181.0	60.0	121.0	18.4	5.3	6.6	7.4	399.6
1979	217.8	65.7	138.9	18.7	5.4	7.4	9.3	463.3
1980	244.1	64.6	157.8	24.3	6.4	7.2	12.7	517.1
1981	285.9	61.1	182.7	40.8	6.8	8.1	13.8	599.3
1982	297.7	49.2	201.5	36.3	8.0	8.9	16.2	617.8
1983	288.9	37.0	209.0	35.3	6.1	8.7	15.6	600.6
1984	298.4	56.9	239.4	37.4	6.0	11.4	17.1	666.5
1985	334.5	61.3	265.2	36.0	6.4	12.1	18.6	734.1
1986	349.0	63.1	283.9	32.9	7.0	13.3	20.0	769.2
1987	392.6	83.9	303.3	32.5	7.5	15.1	19.5	854.4
1988	401.2	94.5	334.3	35.2	7.6	16.2	20.3	909.3
1989	445.7	103.3	359.4	34.4	8.7	16.3	23.3	991.2
1990	466.9	93.5	380.0	35.3	11.5	16.7	28.0	1,032.0
1991	467.8	98.1	396.0	42.4	11.1	15.9	23.6	1,055.0
1992	476.0	100.3	413.7	45.6	11.1	17.4	27.3	1,091.3
1993	509.7	117.5	428.3	48.1	12.6	18.8	19.5	1,154.4
1994	543.1	140.4	461.5	55.2	15.2	20.1	23.2	1,258.6
1995	590.2	157.0	484.5	57.5	14.8	19.3	28.6	1,351.8
1996	656.4	171.8	509.4	54.0	17.2	18.7	25.5	1,453.1
1997	737.5	182.3	539.4	56.9	19.8	17.9	25.5	1,579.3
1998	828.6	188.7	571.8	57.7	24.1	18.3	32.6	1,721.8
1999	879.5	184.7	611.8	70.4	27.8	18.3	34.9	1,827.5

SOURCE: Congressional Budget Office.

Table E-7.
Revenues by Major Source, Fiscal Years 1962-1999 (As a percentage of GDP)

	Individual Income Taxes	Corporate Income Taxes	Social Insurance Taxes	Excise Taxes	Estate and Gift Taxes	Customs Duties	Miscel- laneous Receipts	Total Revenues
1962	8.0	3.6	3.0	2.2	0.4	0.2	0.1	17.5
1963	7.9	3.6	3.3	2.2	0.4	0.2	0.2	17.8
1964	7.6	3.7	3.4	2.1	0.4	0.2	0.2	17.5
1965	7.1	3.7	3.2	2.1	0.4	0.2	0.2	17.0
1966	7.3	4.0	3.4	1.7	0.4	0.2	0.2	17.3
1967	7.6	4.2	4.0	1.7	0.4	0.2	0.3	18.3
1968	7.9	3.3	3.9	1.6	0.4	0.2	0.3	17.6
1969	9.2	3.9	4.1	1.6	0.4	0.2	0.3	19.7
1970	8.9	3.2	4.4	1.5	0.4	0.2	0.3	19.0
1971	8.0	2.5	4.4	1.5	0.3	0.2	0.4	17.3
1972	8.0	2.7	4.5	1.3	0.5	0.3	0.3	17.6
1973	7.9	2.8	4.8	1.2	0.4	0.2	0.3	17.6
1974	8.3	2.7	5.2	1.2	0.3	0.2	0.4	18.3
1975	7.8	2.6	5.4	1.1	0.3	0.2	0.4	17.9
1976	7.6	2.4	5.2	1.0	0.3	0.2	0.5	17.2
1977	8.0	2.8	5.4	0.9	0.4	0.3	0.3	18.0
1978	8.2	2.7	5.5	0.8	0.2	0.3	0.3	18.0
1979	8.7	2.6	5.5	0.7	0.2	0.3	0.4	18.5
1980	8.9	2.4	5.8	0.9	0.2	0.3	0.5	18.9
1981	9.3	2.0	6.0	1.3	0.2	0.3	0.5	19.6
1982	9.2	1.5	6.2	1.1	0.2	0.3	0.5	19.1
1983	8.4	1.1	6.1	1.0	0.2	0.3	0.5	17.4
1984	7.8	1.5	6.2	1.0	0.2	0.3	0.4	17.3
1985	8.1	1.5	6.4	0.9	0.2	0.3	0.4	17.7
1986	7.9	1.4	6.5	0.7	0.2	0.3	0.5	17.5
1987	8.4	1.8	6.5	0.7	0.2	0.3	0.4	18.4
1988	8.0	1.9	6.7	0.7	0.2	0.3	0.4	18.1
1989	8.2	1.9	6.6	0.6	0.2	0.3	0.4	18.3
1990	8.1	1.6	6.6	0.6	0.2	0.3	0.5	18.0
1991	7.9	1.7	6.7	0.7	0.2	0.3	0.4	17.8
1992	7.7	1.6	6.6	0.7	0.2	0.3	0.4	17.5
1993	7.8	1.8	6.5	0.7	0.2	0.3	0.3	17.6
1994	7.8	2.0	6.6	0.8	0.2	0.3	0.3	18.1
1995	8.1	2.1	6.6	0.8	0.2	0.3	0.4	18.5
1996	8.5	2.2	6.6	0.7	0.2	0.2	0.3	18.9
1997	9.0	2.2	6.6	0.7	0.2	0.2	0.3	19.3
1998	9.6	2.2	6.6	0.7	0.3	0.2	0.4	19.9
1999	9.6	2.0	6.7	0.8	0.3	0.2	0.4	20.0

SOURCE: Congressional Budget Office.

Table E-8.
Outlays by Major Spending Category, Fiscal Years 1962-1999 (In billions of dollars)

	Discretionary Spending	Entitlements and Other Mandatory Spending	Net Interest	Offsetting Receipts	Total Outlays
1962	72.1	34.7	6.9	-6.8	106.8
1963	75.3	36.2	7.7	-7.9	111.3
1964	79.1	38.9	8.2	-7.7	118.5
1965	77.8	39.7	8.6	-7.9	118.2
1966	90.1	43.4	9.4	-8.4	134.5
1967	106.5	50.9	10.3	-10.2	157.5
1968	118.0	59.7	11.1	-10.6	178.1
1969	117.3	64.7	12.7	-11.0	183.6
1970	120.3	72.5	14.4	-11.5	195.6
1971	122.5	86.9	14.8	-14.1	210.2
1972	128.5	100.8	15.5	-14.1	230.7
1973	130.4	116.0	17.3	-18.0	245.7
1974	138.2	130.9	21.4	-21.2	269.4
1975	157.9	169.5	23.2	-18.3	332.3
1976	175.5	189.2	26.7	-19.6	371.8
1977	197.0	203.8	29.9	-21.5	409.2
1978	218.6	227.5	35.5	-22.8	458.7
1979	239.9	247.1	42.6	-25.6	504.0
1980	276.2	291.4	52.5	-29.2	590.9
1981	307.9	339.4	68.8	-37.9	678.2
1982	325.9	370.8	85.0	-36.0	745.8
1983	353.3	410.6	89.8	-45.3	808.4
1984	379.4	405.6	111.1	-44.2	851.9
1985	415.7	448.3	129.5	-47.1	946.4
1986	438.5	461.8	136.0	-45.9	990.5
1987	444.2	474.2	138.7	-52.9	1,004.1
1988	464.4	505.1	151.8	-56.8	1,064.5
1989	488.8	549.6	169.0	-63.8	1,143.7
1990	500.5	627.0	184.4	-58.7	1,253.2
1991	533.3	702.3	194.5	-105.7	1,324.4
1992	534.6	716.1	199.4	-68.4	1,381.7
1993	541.0	736.5	198.7	-66.6	1,409.5
1994	543.9	783.6	203.0	-68.5	1,461.9
1995	545.7	817.7	232.2	-79.7	1,515.8
1996	534.5	856.9	241.1	-71.9	1,560.6
1997	548.9	896.3	244.0	-88.0	1,601.3
1998	554.7	938.6	241.2	-81.9	1,652.6
1999	575.0	976.8	229.7	-78.4	1,703.0

SOURCE: Congressional Budget Office.

Table E-9.
Outlays by Major Spending Category, Fiscal Years 1962-1999 (As a percentage of GDP)

	Discretionary Spending	Entitlements and Other Mandatory Spending	Net Interest	Offsetting Receipts	Total Outlays
1962	12.7	6.1	1.2	-1.2	18.8
1963	12.5	6.0	1.3	-1.3	18.5
1964	12.3	6.1	1.3	-1.2	18.5
1965	11.3	5.8	1.2	-1.1	17.2
1966	11.9	5.7	1.2	-1.1	17.8
1967	13.1	6.3	1.3	-1.3	19.4
1968	13.6	6.9	1.3	-1.2	20.5
1969	12.4	6.8	1.3	-1.2	19.3
1970	11.9	7.1	1.4	-1.1	19.3
1971	11.3	8.0	1.4	-1.3	19.4
1972	10.9	8.6	1.3	-1.2	19.6
1973	9.9	8.8	1.3	-1.4	18.7
1974	9.6	9.1	1.5	-1.5	18.7
1975	10.1	10.9	1.5	-1.2	21.3
1976	10.1	10.9	1.5	-1.1	21.4
1977	10.0	10.3	1.5	-1.1	20.7
1978	9.8	10.3	1.6	-1.0	20.7
1979	9.6	9.9	1.7	-1.0	20.1
1980	10.1	10.7	1.9	-1.1	21.6
1981	10.1	11.1	2.2	-1.2	22.2
1982	10.1	11.5	2.6	-1.1	23.1
1983	10.3	11.9	2.6	-1.3	23.5
1984	9.9	10.5	2.9	-1.2	22.1
1985	10.0	10.8	3.1	-1.1	22.9
1986	10.0	10.5	3.1	-1.0	22.5
1987	9.5	10.2	3.0	-1.1	21.6
1988	9.3	10.1	3.0	-1.1	21.2
1989	9.0	10.2	3.1	-1.2	21.2
1990	8.7	10.9	3.2	-1.0	21.8
1991	9.0	11.8	3.3	-1.8	22.3
1992	8.6	11.5	3.2	-1.1	22.2
1993	8.2	11.2	3.0	-1.0	21.5
1994	7.8	11.3	2.9	-1.0	21.0
1995	7.5	11.2	3.2	-1.1	20.7
1996	6.9	11.1	3.1	-0.9	20.3
1997	6.7	11.0	3.0	-1.1	19.6
1998	6.4	10.9	2.8	-0.9	19.1
1999	6.3	10.7	2.5	-0.9	18.7

SOURCE: Congressional Budget Office.

Table E-10.
Discretionary Outlays, Fiscal Years 1962-1999 (In billions of dollars)

	Defense	International	Domestic	Total
1962	52.6	5.5	14.0	72.1
1963	53.7	5.2	16.3	75.3
1964	55.0	4.6	19.5	79.1
1965	51.0	4.7	22.1	77.8
1966	59.0	5.1	26.1	90.1
1967	72.0	5.3	29.1	106.5
1968	82.2	4.9	31.0	118.0
1969	82.7	4.1	30.5	117.3
1970	81.9	4.0	34.4	120.3
1971	79.0	3.8	39.7	122.5
1972	79.3	4.6	44.6	128.5
1973	77.1	4.8	48.5	130.4
1974	80.7	6.2	51.3	138.2
1975	87.6	8.2	62.1	157.9
1976	89.9	7.5	78.2	175.5
1977	97.5	8.0	91.5	197.0
1978	104.6	8.5	105.4	218.6
1979	116.8	9.1	114.0	239.9
1980	134.6	12.8	128.8	276.2
1981	158.0	13.6	136.3	307.9
1982	185.9	12.9	127.1	325.9
1983	209.9	13.6	129.8	353.3
1984	228.0	16.3	135.1	379.4
1985	253.1	17.4	145.2	415.7
1986	273.8	17.7	146.9	438.5
1987	282.5	15.2	146.4	444.2
1988	290.9	15.7	157.7	464.4
1989	304.0	16.6	168.2	488.8
1990	300.1	19.1	181.3	500.5
1991	319.7	19.7	193.9	533.3
1992	302.6	19.2	212.8	534.6
1993	292.4	21.6	227.0	541.0
1994	282.3	20.8	240.8	543.9
1995	273.6	20.1	252.0	545.7
1996	266.0	18.3	250.2	534.5
1997	271.7	19.0	258.3	548.9
1998	270.2	18.1	266.4	554.7
1999	275.5	19.5	280.0	575.0

SOURCE: Congressional Budget Office.

Table E-11.
Discretionary Outlays, Fiscal Years 1962-1999 (As a percentage of GDP)

	Defense	International	Domestic	Total
1962	9.2	1.0	2.5	12.7
1963	8.9	0.9	2.7	12.5
1964	8.6	0.7	3.0	12.3
1965	7.4	0.7	3.2	11.3
1966	7.8	0.7	3.4	11.9
1967	8.9	0.7	3.6	13.1
1968	9.4	0.6	3.6	13.6
1969	8.7	0.4	3.2	12.4
1970	8.1	0.4	3.4	11.9
1971	7.3	0.3	3.7	11.3
1972	6.7	0.4	3.8	10.9
1973	5.9	0.4	3.7	9.9
1974	5.6	0.4	3.6	9.6
1975	5.6	0.5	4.0	10.1
1976	5.2	0.4	4.5	10.1
1977	4.9	0.4	4.6	10.0
1978	4.7	0.4	4.7	9.8
1979	4.7	0.4	4.6	9.6
1980	4.9	0.5	4.7	10.1
1981	5.2	0.4	4.5	10.1
1982	5.8	0.4	3.9	10.1
1983	6.1	0.4	3.8	10.3
1984	5.9	0.4	3.5	9.9
1985	6.1	0.4	3.5	10.0
1986	6.2	0.4	3.3	10.0
1987	6.1	0.3	3.1	9.5
1988	5.8	0.3	3.1	9.3
1989	5.6	0.3	3.1	9.0
1990	5.2	0.3	3.2	8.7
1991	5.4	0.3	3.3	9.0
1992	4.9	0.3	3.4	8.6
1993	4.5	0.3	3.5	8.2
1994	4.1	0.3	3.5	7.8
1995	3.7	0.3	3.4	7.5
1996	3.5	0.2	3.2	6.9
1997	3.3	0.2	3.2	6.7
1998	3.1	0.2	3.1	6.4
1999	3.0	0.2	3.1	6.3

SOURCE: Congressional Budget Office.

Table E-12.
Outlays for Entitlements and Other Mandatory Spending, Fiscal Years 1962-1999
(In billions of dollars)

	Means-Tested Programs			Non-Means-Tested Programs							Total Entitle-ments and Other Mandatory Spending	
	Medicaid	Other	Total Means-Tested	Social Security	Medicare	Other Retirement and Disability	Unemploy-ment Compen-sation	Farm Price Supports	Deposit Insur-ance	Other		Total Non-Means-Tested
1962	0.1	4.2	4.3	14.0	0	2.7	3.5	2.4	-0.4	8.2	30.4	34.7
1963	0.2	4.5	4.7	15.5	0	2.9	3.6	3.4	-0.4	6.6	31.5	36.2
1964	0.2	4.8	5.0	16.2	0	3.3	3.4	3.4	-0.4	8.0	33.9	38.9
1965	0.3	4.9	5.2	17.1	0	3.6	2.7	2.8	-0.4	8.7	34.5	39.7
1966	0.8	5.0	5.8	20.3	*	4.1	2.2	1.4	-0.5	10.1	37.6	43.4
1967	1.2	5.0	6.2	21.3	3.2	4.8	2.3	2.0	-0.4	11.5	44.7	50.9
1968	1.8	5.7	7.5	23.3	5.1	5.7	2.2	3.3	-0.5	13.1	52.2	59.7
1969	2.3	6.3	8.6	26.7	6.3	5.2	2.3	4.2	-0.6	11.9	56.1	64.7
1970	2.7	7.4	10.1	29.6	6.8	6.6	3.1	3.8	-0.5	12.9	62.4	72.5
1971	3.4	10.0	13.4	35.1	7.5	8.3	5.8	2.9	-0.4	14.4	73.5	86.9
1972	4.6	11.7	16.3	39.4	8.4	9.6	6.7	4.1	-0.6	17.0	84.5	100.8
1973	4.6	11.4	16.0	48.2	9.0	11.7	4.9	3.6	-0.8	23.4	100.0	116.0
1974	5.8	13.7	19.5	55.0	10.7	13.8	5.6	1.0	-0.6	25.9	111.4	130.9
1975	6.8	18.6	25.4	63.6	14.1	18.3	12.8	0.6	0.5	34.2	144.1	169.5
1976	8.6	21.7	30.3	72.7	16.9	18.9	18.6	1.1	-0.6	31.2	158.9	189.2
1977	9.9	23.4	33.3	83.7	20.8	21.6	14.3	3.8	-2.8	29.1	170.5	203.8
1978	10.7	24.8	35.5	92.4	24.3	23.7	10.8	5.7	-1.0	36.1	192.0	227.5
1979	12.4	26.5	38.9	102.6	28.2	27.9	9.8	3.6	-1.7	37.9	208.2	247.1
1980	14.0	31.9	45.9	117.1	34.0	32.1	16.9	2.8	-0.4	43.1	245.5	291.4
1981	16.8	37.1	53.9	137.9	41.3	37.4	18.3	4.0	-1.4	48.0	285.5	339.4
1982	17.4	37.4	54.8	153.9	49.2	40.7	22.2	11.7	-2.1	40.4	316.0	370.8
1983	19.0	40.3	59.3	168.5	55.5	43.2	29.7	18.9	-1.2	36.7	351.3	410.6
1984	20.1	41.2	61.3	176.1	61.0	44.7	17.0	7.3	-0.8	39.1	344.3	405.6
1985	22.7	43.3	66.0	186.4	69.6	45.5	15.8	17.7	-2.2	49.4	382.3	448.3
1986	25.0	44.9	69.9	196.5	74.2	47.5	16.1	25.8	1.5	30.1	391.9	461.8
1987	27.4	45.5	72.9	205.1	79.9	50.8	15.5	22.4	3.1	24.5	401.3	474.2
1988	30.5	50.0	80.5	216.8	85.7	54.2	13.6	12.2	10.0	32.1	424.6	505.1
1989	34.6	54.2	88.8	230.4	94.3	57.2	13.9	10.6	22.0	32.4	460.8	549.6
1990	41.1	58.8	99.9	246.5	107.4	59.9	17.5	6.5	57.9	31.3	527.1	627.0
1991	52.5	69.7	122.2	266.8	114.2	64.4	25.1	10.1	66.2	33.3	580.1	702.3
1992	67.8	78.7	146.5	285.2	129.4	66.6	36.9	9.3	2.6	39.6	569.5	716.1
1993	75.8	86.5	162.3	302.0	143.1	68.7	35.4	15.6	-28.0	37.4	574.2	736.5
1994	82.0	95.0	177.0	316.9	159.5	72.1	26.4	9.9	-7.6	29.4	606.6	783.6
1995	89.1	101.5	190.6	333.3	177.1	75.2	21.3	5.8	-17.9	32.3	627.1	817.7
1996	92.0	104.2	196.2	347.1	191.3	77.3	22.4	5.0	-8.4	26.0	660.7	856.9
1997	95.6	107.2	202.8	362.3	207.9	80.6	20.6	5.8	-14.4	30.8	693.5	896.3
1998	101.2	107.8	209.0	376.1	211.0	82.9	19.7	8.5	-4.4	35.7	729.6	938.6
1999	108.0	112.7	220.7	387.0	209.3	85.3	21.1	18.0	-5.3	40.7	756.1	976.8

SOURCE: Congressional Budget Office.

NOTE: * = less than \$50 million.

Table E-13.
Outlays for Entitlements and Other Mandatory Spending, Fiscal Years 1962-1999
(As a percentage of GDP)

	Means-Tested Programs			Non-Means-Tested Programs							Total Non-Means-Tested	Total Entitlements and Other Mandatory Spending
	Medicaid	Other	Total Means-Tested	Social Security	Medicare	Other Retirement and Disability	Unemployment Compensation	Farm Price Supports	Deposit Insurance	Other		
1962	*	0.7	0.8	2.5	*	0.5	0.6	0.4	-0.1	1.4	5.3	6.1
1963	*	0.8	0.8	2.6	*	0.5	0.6	0.6	-0.1	1.1	5.2	6.0
1964	*	0.7	0.8	2.5	*	0.5	0.5	0.5	-0.1	1.2	5.3	6.1
1965	*	0.7	0.8	2.5	*	0.5	0.4	0.4	-0.1	1.3	5.0	5.8
1966	0.1	0.7	0.8	2.7	*	0.5	0.3	0.2	-0.1	1.3	5.0	5.7
1967	0.1	0.6	0.8	2.6	0.4	0.6	0.3	0.2	*	1.4	5.5	6.3
1968	0.2	0.7	0.9	2.7	0.6	0.7	0.2	0.4	-0.1	1.5	6.0	6.9
1969	0.2	0.7	0.9	2.8	0.7	0.6	0.2	0.4	-0.1	1.3	5.9	6.8
1970	0.3	0.7	1.0	2.9	0.7	0.7	0.3	0.4	*	1.3	6.2	7.1
1971	0.3	0.9	1.2	3.2	0.7	0.8	0.5	0.3	*	1.3	6.8	8.0
1972	0.4	1.0	1.4	3.3	0.7	0.8	0.6	0.3	-0.1	1.4	7.2	8.6
1973	0.4	0.9	1.2	3.7	0.7	0.9	0.4	0.3	-0.1	1.8	7.6	8.8
1974	0.4	0.9	1.4	3.8	0.7	1.0	0.4	0.1	*	1.8	7.7	9.1
1975	0.4	1.2	1.6	4.1	0.9	1.2	0.8	*	*	2.2	9.2	10.9
1976	0.5	1.3	1.7	4.2	1.0	1.1	1.1	0.1	*	1.8	9.2	10.9
1977	0.5	1.2	1.7	4.2	1.1	1.1	0.7	0.2	-0.1	1.5	8.6	10.3
1978	0.5	1.1	1.6	4.2	1.1	1.1	0.5	0.3	*	1.6	8.7	10.3
1979	0.5	1.1	1.6	4.1	1.1	1.1	0.4	0.1	-0.1	1.5	8.3	9.9
1980	0.5	1.2	1.7	4.3	1.2	1.2	0.6	0.1	*	1.6	9.0	10.7
1981	0.6	1.2	1.8	4.5	1.3	1.2	0.6	0.1	*	1.6	9.3	11.1
1982	0.5	1.2	1.7	4.8	1.5	1.3	0.7	0.4	-0.1	1.3	9.8	11.5
1983	0.6	1.2	1.7	4.9	1.6	1.3	0.9	0.5	*	1.1	10.2	11.9
1984	0.5	1.1	1.6	4.6	1.6	1.2	0.4	0.2	*	1.0	9.0	10.5
1985	0.5	1.0	1.6	4.5	1.7	1.1	0.4	0.4	-0.1	1.2	9.2	10.8
1986	0.6	1.0	1.6	4.5	1.7	1.1	0.4	0.6	*	0.7	8.9	10.5
1987	0.6	1.0	1.6	4.4	1.7	1.1	0.3	0.5	0.1	0.5	8.6	10.2
1988	0.6	1.0	1.6	4.3	1.7	1.1	0.3	0.2	0.2	0.6	8.5	10.1
1989	0.6	1.0	1.6	4.3	1.7	1.1	0.3	0.2	0.4	0.6	8.5	10.2
1990	0.7	1.0	1.7	4.3	1.9	1.0	0.3	0.1	1.0	0.5	9.2	10.9
1991	0.9	1.2	2.1	4.5	1.9	1.1	0.4	0.2	1.1	0.6	9.8	11.8
1992	1.1	1.3	2.4	4.6	2.1	1.1	0.6	0.1	*	0.6	9.2	11.5
1993	1.2	1.3	2.5	4.6	2.2	1.0	0.5	0.2	-0.4	0.6	8.8	11.2
1994	1.2	1.4	2.5	4.6	2.3	1.0	0.4	0.1	-0.1	0.4	8.7	11.3
1995	1.2	1.4	2.6	4.6	2.4	1.0	0.3	0.1	-0.2	0.4	8.6	11.2
1996	1.2	1.4	2.5	4.5	2.5	1.0	0.3	0.1	-0.1	0.3	8.6	11.1
1997	1.2	1.3	2.5	4.4	2.5	1.0	0.3	0.1	-0.2	0.4	8.5	11.0
1998	1.2	1.2	2.4	4.4	2.4	1.0	0.2	0.1	-0.1	0.4	8.4	10.9
1999	1.2	1.2	2.4	4.2	2.3	0.9	0.2	0.2	-0.1	0.4	8.3	10.7

SOURCE: Congressional Budget Office.

NOTE: * = less than 0.05 percent.

Major Contributors to the Revenue and Spending Projections

The following Congressional Budget Office analysts prepared the revenue and spending projections in this report:

Revenue Projections

Mark Booth	Individual income taxes
Pam Greene	Estate and gift taxes
Hester Grippando	Customs duties, miscellaneous receipts
Carolyn Lynch	Corporate income taxes, Federal Reserve System earnings
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Robert Taylor	Excise taxes and social insurance taxes
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Spending Projections

Defense, International Affairs, and Veterans' Affairs

Kent Christensen	Defense (military construction, base closures)
Evan Christman	Veterans' compensation and pensions
Sunita D'Monte	International affairs (conduct of foreign affairs and information exchange activities), veterans' housing
Raymond Hall	Defense (Navy weapons, missile defenses, atomic energy defense)
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Sam Papenfuss	Veterans' health care, military health care
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Health

Chuck Betley	Medicare, Federal Employees Health Benefits, Public Health Service
Michael Birnbaum	Medicare Hospital and Medicare+Choice Outpatient, Public Health Service
Julia Christensen	Medicare Physician, Federal Employees Health Benefits, Public Health Service
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Cynthia Dudzinski	Medicare Post-acute Services, Public Health Service
Dorothy Rosenbaum	Medicaid, State Children's Health Insurance Program, tobacco

Human Resources

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Kathy Ruffing	Social Security
Christi Hawley Sadoti	Unemployment insurance, training programs, aging programs, arts and humanities, foster care

Natural and Physical Resources

Coleman Bazelon	Spectrum auction receipts
Megan Carroll	Water resources, Federal Emergency Management Agency, Indian affairs
Shelley Finlayson	Conservation and land management
Mark Grabowicz	Justice, Postal Service
Kathleen Gramp	Energy, science and space, spectrum auction receipts
Mark Hadley	Commerce, credit unions, Small Business Administration, Universal Service Fund
Victoria Heid	Conservation and land management, Outer Continental Shelf receipts, air transportation
Greg Hitz	Agriculture
David Hull	Agriculture
Craig Jagger	Agriculture
Lanette Keith	Justice, regional development
James Langley	Agriculture
Mary Maginniss	Deposit insurance, legislative branch
Susanne Mehlman	Pollution control and abatement, Federal Housing Administration and other housing credit
James O'Keeffe	Highways, AMTRAK, mass transit, air transportation
Deborah Reis	Recreation, water transportation, community development, other natural resources
John Righter	General government
Susan Sieg	Conservation and land management

Other

Janet Airis	Appropriation bills (Legislative branch, District of Columbia)
Edward Blau	Authorization bills
Jodi Capps	Appropriation bills (Agriculture, Interior, Energy, and water)
Betty Embrey	Appropriation bills (Commerce-Justice-State, foreign operations)
Kenneth Farris	Computer support
Mary Froehlich	Computer support
Terri Linger	Computer support
Catherine Mallison	Appropriation bills (Defense, Treasury)
Taman Morris	National income and product accounts
Laurie Pounder	Net interest on the public debt
Ilga Semeiks	Other interest, civilian agency pay
Robert Sempsey	Appropriation bills (Labor-HHS, Transportation, military construction)
Susan Tanaka	Discretionary caps, overall budget outlook

Glossary

This glossary defines economic and budgetary terms as they relate to this report and for the general information of our readers. Some entries sacrifice precision for brevity and clarity to the lay reader. Where appropriate, sources of data for economic variables are indicated as follows:

- o BEA denotes the Bureau of Economic Analysis in the Department of Commerce;
- o BLS denotes the Bureau of Labor Statistics in the Department of Labor;
- o CBO denotes the Congressional Budget Office;
- o FRB denotes the Federal Reserve Board; and
- o NBER denotes the National Bureau of Economic Research.

Definitions of some budgetary terms are from the General Accounting Office (GAO), *A Glossary of Terms Used in the Budget Process, Exposure Draft*, GAO/AFMD-2.1.1 (January 1993).

adjusted gross income (AGI): All income subject to tax under the individual income tax after subtracting "above-the-line" deductions, such as certain contributions for individual retirement accounts and alimony payments. Taxable income is then derived by subtracting personal exemptions and the standard or itemized deductions from AGI.

advance appropriation: Budget authority provided in an appropriation act that is first available in a fiscal year beyond the fiscal year for which the appropriation is enacted. The amount is included in the budget totals for the fiscal year in which it will become available for obligation, not in the year for which the appropriation is enacted. (GAO).

aggregate demand: Total purchases of a country's output of goods and services by consumers, businesses, government, and foreigners during a given period. (BEA) Compare with **domestic demand**.

AGI: See **adjusted gross income**.

appropriation act: A statute or legislation under the jurisdiction of the House and Senate Committees on Appropriations that provides budget authority. Enactment of an appropriation act generally follows adoption of an authorization. Currently, there are 13 regular appropriation acts each year; the Congress may also enact supplemental or continuing appropriations. See **budget authority**.

authorization: A statute or legislation that establishes or continues a federal program or agency. An authorization is normally prerequisite to consideration and enactment of an appropriation act. For some programs, the authorization itself provides the authority to incur obligations and make payments.

Balanced Budget Act of 1997 (Public Law 105-33): This act carried out reconciliation instructions contained in the budget resolution for fiscal years 1998 through 2002. Title X amended the Deficit Control Act by setting discretionary spending caps for each fiscal year through 2002, extending pay-as-you-go procedures for all affected legislation enacted through 2002, and making corresponding extensions in the sequestration procedures. The act created separate discretionary spending caps for defense and nondefense spending through 1999 and a third cap for violent crime reduction spending through fiscal year 2000. In addition, title X amended the Congressional Budget Act of 1974 to make various conforming procedural changes. See **reconciliation, discretionary spending caps, and pay-as-you-go**.

Balanced Budget and Emergency Deficit Control Act of 1985 (Public Law 99-177): Referred to in this report as the Deficit Control Act, the act was originally known as Gramm-Rudman-Hollings. The act set forth specific deficit targets and a sequestration procedure to reduce spending if those targets were exceeded. The act also amended the Congressional Budget Act of 1974 to make significant changes in Congressional budget procedures. The Deficit Control Act has been amended and extended several times—most significantly by the Budget Enforcement Act of 1990 and most recently by the Omnibus Budget Reconciliation Act of 1993 and the Balanced Budget Act of 1997. See **discretionary spending caps and pay-as-you-go**.

baseline: A benchmark for measuring the budgetary effects of proposed changes in federal revenues or spending. Generally, the baseline is an estimate of spending, revenue, surplus or deficit, and public debt expected during a fiscal year under current laws and policy. For purposes of the Deficit Control Act, the baseline is defined as the projection of current-year levels of new budget authority, outlays, revenues, and the surplus or deficit into the budget year and out-years based on laws enacted through the applicable date. (GAO) See **revenues, direct spending, and discretionary spending**.

basis point: A hundredth of a percentage point. For example, the difference between interest rates of 10.5 percent and 10.0 percent is 50 basis points.

Blue Chip consensus forecast: The average of about 50 economic forecasts surveyed by Aspen Publishers, Inc.

budget authority: Legal authority to incur financial obligations that will result in outlays of federal government funds. Budget authority may be provided in an authorization or an appropriation act. Offsetting collections, including offsetting receipts, constitute negative budget authority. See **authorization, appropriation act, and offsetting receipts**.

Budget Enforcement Act of 1990 (Public Law 101-508): Title XIII of the Omnibus Budget Reconciliation Act of 1990. This act amended the Deficit Control Act to revise and extend the deficit targets through fiscal year 1995, to establish discretionary spending caps and pay-as-you-go procedures through fiscal year 1995, to conform sequestration procedures to the caps and pay-as-you-go, and to establish credit reform. This act also amended the Congressional Budget Act of 1974 to make significant changes in Congressional budget procedures. See **discretionary spending caps, pay-as-you-go, and credit reform**.

budget function: One of 20 broad categories into which federal spending and credit activities that serve similar objectives are grouped. National needs are grouped into 17 broad budget functions, including national defense, international affairs, energy, agriculture, health, income security, and general government. Three other functions—net interest, allowances, and undistributed offsetting receipts—are included to complete the budget.

budget resolution: A concurrent resolution, adopted by both Houses of Congress, that sets forth a Congressional budget plan for at least five years. The plan consists of spending and revenue targets and is implemented through subsequent legislation, including appropriation acts and changes in laws that affect revenues and direct spending. Such changes may be in response to reconciliation instructions included in the budget resolution. The targets estab-

lished in the budget resolution are enforced through Congressional procedural mechanisms set out in the Congressional Budget Act of 1974. See **appropriation act**, **direct spending**, and **reconciliation**.

budgetary resources: All sources of budget authority that are subject to sequestration. Budgetary resources include new budget authority, unobligated balances, direct spending authority, and obligation limitations. See **budget authority** and **sequestration**.

business cycle: Fluctuations in overall business activity accompanied by swings in the unemployment rate, interest rates, and profits. Over a business cycle, real activity rises to a peak (its highest level during the cycle), then falls until it reaches its trough (its lowest level following the peak), whereupon it starts to rise again, defining a new cycle. Business cycles are irregular, varying in frequency, magnitude, and duration. (NBER)

capacity utilization rate: The seasonally adjusted output of the nation's factories, mines, and electric and gas utilities expressed as a percentage of their capacity to produce output. The capacity of a facility is the greatest output it can maintain with a normal work pattern. (FRB)

capital: *Physical capital* is the stock of products set aside to support future production and consumption. In the national income and product accounts, private capital consists of business inventories, producers' durable equipment, and residential and nonresidential structures. *Financial capital* is funds raised by governments, individuals, or businesses by incurring liabilities such as bonds, mortgages, or stock certificates. *Human capital* is the education, training, work experience, and other attributes that enhance the ability of the labor force to produce goods and services. *Bank capital* is the sum advanced and put at risk by the owners of a bank; it represents the first "cushion" in the event of loss, thereby decreasing the willingness of the owners to take risks in lending. See **consumption** and **national income and product accounts**.

central bank: A government-established agency responsible for conducting monetary policy and overseeing credit conditions. The Federal Reserve System fulfills those functions in the United States. See **Federal Reserve System** and **monetary policy**.

civilian unemployment rate: Unemployment as a percentage of the civilian labor force—that is, the labor force excluding armed forces personnel. (BLS) See **unemployment**.

compensation: All income due to employees for their work during a given period. In addition to wages, salaries, bonuses, and stock options, compensation includes fringe benefits and the employer's share of social insurance contributions. (BEA)

Consolidated Appropriations Act: The popular name of Public Law 106-113, An Act making consolidated appropriations for the fiscal year ending September 30, 1999, and for other purposes. This act contains the fiscal year 2000 appropriations for the District of Columbia and incorporates, by reference, five additional appropriation acts (Commerce-Justice-State, Foreign Operations, Interior, Labor-HHS, and a miscellaneous act) and four authorization acts, including the Medicare, Medicaid, and SCHIP Balanced Budget Refinement Act of 1999 and the Intellectual Property and Communications Omnibus Reform Act of 1999.

consumer confidence: An index of consumers' attitudes and buying plans. One such index is constructed by the University of Michigan Survey Research Center based on surveys of consumers' views of the state of the economy and of their personal finances, both current and prospective.

consumer price index (CPI): The consumer price index, a measure of the change in the cost of living, commonly used as a measure of inflation. There are two official CPIs, the CPI-U and the CPI-W. The *CPI-U* is an index of

consumer prices based on the typical market basket of goods and services consumed by all urban consumers during a base period. The *CPI-W* is an index of consumer prices based on the typical market basket of goods and services consumed by urban wage earners and clerical workers during a base period. (BLS)

consumption: Total purchases of goods and services during a given period by households for their own use. (BEA)

CPI: See **consumer price index**.

credit crunch: A sudden reduction in the availability of credit from banks and capital markets at given interest rates on bank loans and other credit instruments. The reduced availability can result from many factors, including an increased perception of risk to lenders, an imposition of credit controls, or a sharp restriction of the money supply.

credit reform: A revised system of budgeting for federal credit activities that focuses on the cost of subsidies conveyed in federal credit assistance. The system was authorized by the Federal Credit Reform Act of 1990, which was part of the Budget Enforcement Act of 1990. See **credit subsidy**.

credit subsidy: The estimated long-term cost to the federal government of a direct loan or a loan guarantee calculated on the basis of net present value, excluding federal administrative costs and any incidental effects on governmental receipts or outlays. For direct loans, the subsidy cost is the net present value of loan disbursements minus repayments of interest and principal, adjusted for estimated defaults, prepayments, fees, penalties, and other recoveries. For loan guarantees, the subsidy cost is the net present value of the estimated payments by the government to cover defaults and delinquencies, interest subsidies, or other payments, offset by any payments to the government, including origination and other fees, penalties, and recoveries. See **present value**.

currency value: See **exchange rate**.

current-account balance: The net revenues that arise from a country's international sales and purchases of goods and services plus net international transfers (public or private gifts or donations) and net factor income (primarily capital income from foreign-located property owned by residents minus capital income from domestic property owned by nonresidents). The current-account balance differs from net exports in that it includes international transfers and net factor income. (BEA) See **net exports**.

current dollar: A measure of spending or revenue in a given year that has not been adjusted for differences in prices between that year and a base year. See **real**.

cyclical surplus: The part of the budget surplus that results from cyclical factors rather than from underlying fiscal policy. The cyclical surplus reflects the fact that when gross domestic product (GDP) falls, revenues automatically fall and outlays automatically rise. By definition, the cyclical surplus is zero when the economy is operating at potential GDP and the unemployment rate equals the nonaccelerating inflation rate of unemployment, or NAIRU. See **surplus**, **fiscal policy**, and **NAIRU**; compare with **standardized-budget surplus**. (CBO)

debt: Total debt issued by the federal government is referred to as *federal debt* or *gross debt*. Federal debt has two components: *debt held by the public* (federal debt held by nonfederal investors, including the Federal Reserve System) and *debt held by government accounts* (federal debt held by federal government trust funds, deposit insurance funds, and other federal accounts). *Debt subject to limit* is federal debt that is subject to a statutory limit on its issuance. The current limit applies to almost all gross debt, except a small portion of the debt issued by the Department of the Treasury and the small amount of debt issued by other federal agencies (primarily the Tennessee Valley Authority and the Postal Service).

debt service: Payment of scheduled interest obligations on outstanding debt.

deficit: The amount by which outlays exceed revenues in a given period, typically a fiscal year. A negative deficit is equivalent to a surplus. See **surplus**.

Deficit Control Act: See **Balanced Budget and Emergency Deficit Control Act of 1985**.

deflator: See **implicit deflator**.

deposit insurance: The guarantee by a federal agency that an individual depositor at a participating depository institution will receive the full amount of the deposit (up to \$100,000) if the institution becomes insolvent.

depreciation: Decline in the value of a currency, financial asset, or capital good. When applied to a capital good, depreciation usually refers to loss of value because of obsolescence or wear.

devaluation: The fall in the value of a currency that occurs when the government declares that its domestic currency will buy fewer units of a foreign currency. Such a policy involves government intervention to peg its currency (that is, fix its exchange rate). Many governments peg their domestic currencies to a stable currency, such as the U.S. dollar or the German mark. See **exchange rate** and **depreciation**.

direct spending: Another term for **mandatory spending**. As defined in the Deficit Control Act, as amended, direct spending comprises entitlements, the Food Stamp program, and budget authority provided by laws other than annual appropriation acts. See **entitlement**, **budget authority**, and **appropriation act**; compare with **discretionary spending**.

discount rate: The interest rate the Federal Reserve System charges on a loan that it makes to a bank. Such loans, when allowed, enable a bank to meet its reserve requirements without reducing its loans.

discouraged workers: Jobless people who are available for work but who are not actively seeking it because they think they have poor prospects of finding jobs. Discouraged workers are not counted as part of the labor force or as being unemployed. (BLS) See also **unemployment**.

discretionary spending: Spending for programs whose funding levels are determined and controlled in annual appropriation acts. See **appropriation act**; compare with **direct spending**.

discretionary spending caps: Ceilings imposed in each fiscal year through 2002 on budget authority and outlays for programs whose funding levels are determined and controlled in annual appropriation acts. Established in the Budget Enforcement Act of 1990, the ceilings were further amended in the Balanced Budget Act of 1997 to set separate caps on defense and nondefense spending through fiscal year 1999 and on violent crime reduction spending through 2000. (For a list of discretionary programs, see U.S. House of Representatives, *Balanced Budget Act of 1997*, conference report to accompany H.R. 2015, Report 105-217 (July 30, 1997), p. 1019.) See **discretionary spending** and **sequestration**.

disposable personal income: Income received by individuals, including transfer payments, minus personal taxes and fees paid to government. (BEA)

domestic demand: Total purchases of goods and services, regardless of origin, by U.S. consumers, businesses, and governments during a given period. Domestic demand equals gross domestic product minus net exports. (BEA) See **gross domestic product** and **net exports**; compare with **aggregate demand**.

ECI: See **employment cost index**.

economic profits: Profits of corporations, adjusted to remove the distortions in depreciation allowances caused by tax rules and to exclude capital gains on inventories. Economic profits represent a better measure of profits from current production than the book profits reported by corporations. (BEA)

employment cost index (ECI): An index of the cost of an hour of labor—comprising the cost to the employer for wage or salary payments, employee benefits, and contributions for social insurance. The ECI is unaffected by changes in the mix of occupations and of employment by industry. (BLS)

entitlements: Programs that create a legal obligation on the federal government to make payments to any person, business, or unit of government that meets the criteria set in law. The Congress controls those programs by setting eligibility criteria and the benefit or payment rules, not by providing a specific level of funding. Although the level of spending for entitlements is determined by the number of beneficiaries who meet the eligibility criteria, funding may be provided in either the authorization or an appropriation act. The best-known entitlements are the major benefit programs, such as Social Security and Medicare. See **authorization** and **direct spending**.

European Monetary Union (EMU): A currency union consisting of most of the members of the European Union, who in January 1999 aligned their monetary policies under a European Central Bank and adopted a common currency, the euro.

exchange rate: The number of units of a foreign currency that can be bought with one unit of the domestic currency. (FRB)

excise tax: A tax levied on the purchase of a specific type of good or service, such as tobacco products or telephone services.

expansion: A phase of the business cycle that extends from a trough to the next peak. See **business cycle**. (NBER)

federal funds: All funds that compose the federal budget except those classified by law as trust funds. See **trust fund**.

federal funds rate: Overnight interest rate at which financial institutions borrow and lend monetary reserves. A rise in the federal funds rate (compared with other short-term rates) suggests a tightening of monetary policy, whereas a fall suggests an easing. (FRB)

Federal Open Market Committee (FOMC): The group within the Federal Reserve System that determines the direction of monetary policy. The open market desk at the Federal Reserve Bank of New York implements the policy with open market operations—the purchase or sale of government securities—which influence short-term interest rates and the growth of the money supply. The FOMC is composed of 12 members, including the seven members of the Board of Governors of the Federal Reserve System, the president of the Federal Reserve Bank of New York, and a rotating group of four of the other 11 presidents of the regional Federal Reserve Banks. See **Federal Reserve System** and **monetary policy**.

Federal Reserve System: As the central bank of the United States, the Federal Reserve is responsible for conducting the nation's monetary policy and overseeing credit conditions. See **monetary policy**.

financing account: An account established under credit reform to handle the cash transactions of federal direct loans and loan guarantees. Under credit reform, only the subsidy cost of direct loans or loan guarantees appears in the

budget. The transactions reflected in the financing accounts are considered a means of financing and, as such, are extrabudgetary. See **credit subsidy** and **means of financing**.

fiscal policy: The government's choice of tax and spending programs, which influences the amount and maturity of government debt as well as the level, composition, and distribution of national output and income. An "easy" fiscal policy stimulates the short-term growth of output and income, whereas a "tight" fiscal policy restrains their growth. Movements in the standardized-budget surplus constitute one overall indicator of the tightness or ease of federal fiscal policy; an increase relative to potential gross domestic product suggests fiscal ease, whereas a decrease suggests fiscal restriction. The President and the Congress jointly determine federal fiscal policy. See **standardized-budget surplus**.

fiscal year: A yearly accounting period. The federal government's fiscal year begins October 1 and ends September 30. Fiscal years are designated by the calendar years in which they end—for example, fiscal year 1998 began October 1, 1997, and ended on September 30, 1998.

GDI: See **gross domestic income**.

GDP: See **gross domestic product**.

GDP gap: The difference between potential real GDP and actual real GDP, expressed as a percentage of potential real GDP. See **potential real GDP** and **real**.

GNP: See **gross national product**.

government-sponsored enterprises: Financial institutions established and chartered by the federal government that are privately owned and that facilitate the flow of funds to selected lending markets, such as residential mortgages and agricultural credit. Major examples are Fannie Mae and the Federal Home Loan Banks.

grants: Transfer payments from the federal government to state and local governments or other recipients to help fund projects or activities that do not involve substantial federal participation.

grants-in-aid: Grants from the federal government to state and local governments to help provide for programs of assistance or service to the public.

gross debt: Total debt issued by the federal government. See **debt**.

gross domestic income (GDI): The sum of all income earned in the domestic production of goods and services. (BEA)

gross domestic product (GDP): The total market value of goods and services produced domestically during a given period. The components of GDP are consumption, gross investment, government purchases of goods and services, and net exports. (BEA) See **consumption**, **gross investment**, and **net exports**.

gross investment: A measure of additions to the capital stock that does not subtract depreciation of existing capital.

gross national product (GNP): The total market value of goods and services produced in a given period by labor and capital supplied by residents of a country, regardless of where the labor and capital are located. GNP differs from GDP primarily by including the capital income that residents earn from investments abroad and excluding the capital income that nonresidents earn from domestic investment.

hedge fund: An unregulated private investment pool that holds financial assets. To remain unregulated, hedge funds must limit their membership to small numbers of wealthy individuals and institutions. Institutional members of some hedge funds have included commercial banks. Unlike pension and mutual funds, hedge funds finance some investment from borrowing, a practice that increases the risk of their financial positions. Hedge funds may also follow complex investment strategies, especially by trading in financial derivatives—assets whose value derives from the performance of an index of more elementary assets, such as stocks or bonds of individual companies or organizations.

implicit deflator: A measure of price for the whole economy or for a category of spending given by the ratio of current-dollar spending to real spending. See **real** and **current dollar**. (BEA)

inflation: Growth in a measure of the general price level, usually expressed as an annual rate of change.

infrastructure: Government-owned capital goods that provide services to the public, usually with benefits to the community at large as well as to the direct user. Examples include schools, roads, bridges, dams, harbors, and public buildings.

inventories: Stocks of goods held by businesses either for further processing or for sale. (BEA)

investment: *Physical investment* is the current product set aside during a given period to be used for future production—in other words, an addition to the stock of capital goods. As measured by the national income and product accounts, private domestic investment consists of investment in residential and nonresidential structures, producers' durable equipment, and the change in business inventories. *Financial investment* is the purchase of a financial security. *Investment in human capital* is spending on education, training, health services, and other activities that increase the productivity of the workforce. Investment in human capital is not treated as investment by the national income and product accounts. See **national income and product accounts** and **inventories**.

labor force: The number of people who have jobs or who are available for work and are actively seeking jobs. The *labor force participation rate* is the labor force as a percentage of the noninstitutional population age 16 or older. (BLS)

liquidating account: Any budgetary account established under credit reform to finance direct loan and loan guarantee activities that were obligated or committed before October 1, 1992 (the effective date of credit reform). See **credit reform**.

liquidity: The ease with which an asset can be sold for cash. An asset is highly liquid if it comes in standard units that are traded daily in large amounts by many buyers and sellers. Among the most liquid of assets are U.S. Treasury securities.

long-term interest rate: The interest rate earned by a note or bond that matures in 10 or more years.

mandatory spending: Another term for **direct spending**.

marginal tax rate: The tax rate that applies to an additional dollar of income.

means of financing: Means by which a budget deficit is financed or a surplus is disposed of. Means of financing are not included in the budget totals. The primary means of financing is borrowing from the public. In general, the cumulative amount borrowed from the public (debt held by the public) will increase if there is a deficit and decrease if there is a surplus, although other factors can affect the amount that the government must borrow. Those other factors, known as *other means of financing*, include reductions (or increases) in the government's cash balances,

seigniorage, changes in checks outstanding, changes in accrued interest costs included in the budget but not yet paid, and cash flows reflected in credit financing accounts. See **deficit, surplus, and debt**.

means-tested programs: Programs that provide cash or services to people who meet a test of need based on income and assets. Most means-tested programs are entitlements (such as Medicaid, the Food Stamp program, Supplemental Security Income, family support, and veterans' pensions), but a few (such as subsidized housing and various social services) are funded through discretionary appropriations. See **entitlements** and **discretionary spending**.

monetary policy: The strategy of influencing movements of the money supply and interest rates to affect output and inflation. An "easy" monetary policy suggests faster money growth and initially lower short-term interest rates in an attempt to increase aggregate demand, but it may lead to a higher rate of inflation. A "tight" monetary policy suggests slower money growth and higher interest rates in the near term in an attempt to reduce inflationary pressure by reducing aggregate demand. The Federal Reserve System conducts monetary policy in the United States. See **money supply** and **aggregate demand**.

money supply: Private assets that can readily be used to make transactions or are easily convertible into assets that can.

NAIRU (nonaccelerating inflation rate of unemployment): The unemployment rate consistent with a constant inflation rate. An unemployment rate higher than the NAIRU indicates downward pressure on inflation, whereas an unemployment rate lower than the NAIRU indicates upward pressure on inflation. Estimates of the NAIRU are based on the historical relationship between inflation and the unemployment rate. CBO's procedures for estimating the NAIRU are described in Appendix B of *The Economic and Budget Outlook: An Update* (August 1994). See **inflation** and **unemployment**.

national income: Income from all sources earned by U.S. residents, including compensation of employees (wages, salaries, and benefits), corporate profits, net interest, rental income, and proprietors' income.

national income and product accounts (NIPAs): Official U.S. accounts that track the level and composition of GDP and how the costs of production are distributed as income. (BEA)

national saving: Total saving by all sectors of the economy: personal saving, business saving (corporate after-tax profits not paid as dividends), and government saving (the budget surplus or deficit—indicating dissaving—of all government entities). National saving represents all income not consumed, publicly or privately, during a given period. (BEA)

net exports: Exports of goods and services produced in a country minus its imports of goods and services produced elsewhere.

net interest: *In the federal budget*, net interest includes federal interest payments to the public as recorded in budget function 900. Net interest also includes, as an offset, interest income received by the government on loans and cash balances. *In the national income and product accounts (NIPAs)*, net interest is the income component of GDP paid as interest—primarily interest that domestic businesses pay minus interest they receive. The NIPAs include government interest payments in personal income, but such payments are not part of GDP. See **national income and product accounts**.

net national saving: National saving minus depreciation of physical capital. See **depreciation** and **capital**.

NIPAs: See **national income and product accounts**.

nominal: A measure based on current-dollar value. For income or spending, the nominal level is measured in current dollars. For an interest rate, the nominal rate on debt selling at par is the current-dollar interest paid in any year as a ratio of the current-dollar value of the debt when it was issued. For debt initially issued or now selling at a discount, the nominal rate includes as a payment the estimated yearly equivalent of the difference between the redemption price and the discounted price. For an exchange rate, the nominal rate is the rate at which one nominal unit of currency trades for another. See **current dollar**; compare with **real**.

obligation delay: Legislative or statutory language that precludes the obligation of an amount provided by an appropriation until some time after the first day on which the appropriation would normally be available for obligation. For instance, language in an annual appropriation act for fiscal year 2000 that precludes obligation of an amount until March 1, 2000, is an obligation delay; without that language, the amount would have been available for obligation on October 1, 1999. Compare with **advance appropriation**.

off-budget: Spending or revenues excluded from the budget totals by law. The revenues and outlays of the two Social Security trust funds and the transactions of the Postal Service are off-budget and (except for the administrative costs of Social Security, which are discretionary) are not included in the budget resolution or in any calculations necessary under the Deficit Control Act. See **budget resolution** and **Balanced Budget and Emergency Deficit Control Act of 1985**.

offsetting collections: Amounts received by the federal government from the public as a result of business-type activities and from other government accounts that are credited to appropriation or fund accounts by law. Offsetting collections are available for obligation without further appropriation action. For purposes of the Congressional Budget Act and the Deficit Control Act, these collections are defined as negative budget authority and offset discretionary budget authority and outlays in the account to which they are credited. See **budget authority**; compare with **offsetting receipts**.

offsetting receipts: Funds collected by the federal government that are recorded as negative budget authority and outlays and credited to separate receipt accounts. More than half of offsetting receipts are intragovernmental receipts that reflect agencies' payments to retirement and other funds on behalf of their employees; those receipts simply balance payments elsewhere in the budget. Proprietary receipts are offsetting receipts that come to the federal government from the public, generally as a result of voluntary, business-type transactions. Examples of proprietary receipts are premiums for Supplementary Medical Insurance (Part B of Medicare), receipts from timber and oil leases, and proceeds from the sale of electric power. See **budget authority** and **receipt account**; compare with **offsetting collections** and **revenues**.

Omnibus Budget Reconciliation Act of 1993 (Public Law 103-66): This act carried out the reconciliation instructions contained in the budget resolution for fiscal years 1994 through 1998. Title XIV of the act amended the Deficit Control Act by extending the discretionary spending caps, pay-as-you-go procedures, and sequestration procedures through fiscal year 1998. The act did not extend deficit targets beyond fiscal year 1995. See **reconciliation**, **discretionary spending caps**, and **pay-as-you-go**.

other means of financing: See **means of financing**.

outlays: Expenditures made to fulfill a federal obligation, generally by issuing a check or disbursing cash. Offsetting collections, including offsetting receipts, constitute negative outlays. Outlays may pay for obligations incurred in previous fiscal years or in the current year. Outlays, therefore, flow in part from unexpended balances of prior-year budget authority and in part from budget authority provided for the current year. Unlike outlays for other categories of spending, outlays for interest on the public debt are counted when the interest is earned, not when it is paid. Also,

outlays for direct loans and loan guarantees made since fiscal year 1992 reflect the estimated subsidy costs instead of cash transactions.

pay-as-you-go (PAYGO): A procedure that tracks the five-year budgetary effects of all enacted legislation affecting direct spending or receipts and that triggers a sequestration if the legislation would increase the deficit or reduce the surplus in a fiscal year. The procedure was established in the Budget Enforcement Act of 1990 and was extended in the Balanced Budget Act of 1997 for laws enacted through fiscal year 2002. See **direct spending**, **sequestration**, **deficit**, and **surplus**.

peak: See **business cycle**.

personal saving: Saving by households. Personal saving equals disposable personal income minus spending for consumption and interest payments. The *personal saving rate* is personal saving as a percentage of disposable personal income. (BEA) See **disposable personal income**.

potential labor force: The labor force adjusted for movements in the business cycle. See **labor force** and **business cycle**.

potential real GDP: The highest level of real gross domestic product that could persist for a substantial period without raising the rate of inflation. CBO calculates potential real GDP by relating it to the nonaccelerating inflation rate of unemployment, a rate that is consistent with a constant inflation rate. (CBO) See **real** and **NAIRU**.

present value: A single number that expresses a flow of current and future income (or payments) in terms of an equivalent lump sum received (or paid) today. The calculation of present value depends on the rate of interest. For example, given an interest rate of 5 percent, 95 cents today will grow to \$1 next year. Hence, the present value of \$1 payable a year from today is only 95 cents.

private saving: Saving by households and businesses. Private saving is equal to personal saving plus after-tax corporate profits minus dividends paid. (BEA)

productivity: Average real output per unit of input. *Labor productivity* is average real output per hour of labor. The growth of labor productivity is defined as the growth of real output that is not explained by the growth of labor input alone. *Total factor productivity* is average real output per unit of combined labor and capital inputs. The growth of total factor productivity is defined as the growth of real output that is not explained by the growth of labor and capital. Labor productivity and total factor productivity differ in that increases in capital per worker raise labor productivity but not total factor productivity. (BLS)

program account: Any budgetary account that finances credit subsidies and the costs of administering credit programs. See **credit subsidy**.

real: Adjusted to remove the effects of inflation. *Real output* represents the quantity, rather than the dollar value, of goods and services produced. *Real income* represents the power to purchase real output. *Real data* at the finest level of disaggregation are constructed by dividing the corresponding nominal data, such as spending or wage rates, by a price index. Real aggregates, such as *real GDP*, are constructed by a procedure that allows the real growth of the aggregate to reflect the real growth of its components, appropriately weighted by the importance of the components. A *real interest rate* is a nominal interest rate adjusted for expected inflation; it is often approximated by subtracting an estimate of the expected inflation rate from the nominal interest rate. Compare with **nominal** and **current dollar**.

receipt account: Any account that is established exclusively to record the collection of income, including negative subsidies. In general, receipt accounts that collect money arising from the exercise of the government's sovereign powers are included as revenues, whereas the proceeds of intragovernmental transactions or collections from the public arising from business-type transactions (such as interest income, proceeds from the sale of property or products, or profits from federal credit activities) are included as offsetting receipts—that is, credited as offsets to outlays rather than included in revenues. See **revenues** and **offsetting receipts**.

recession: A phase of the business cycle extending from a peak to the next trough—usually lasting six months to a year—and characterized by widespread declines in output, income, employment, and trade in many sectors of the economy. Real GDP usually falls throughout a recession. (NBER) See **business cycle**.

reconciliation: A special legislative procedure established under the Congressional Budget Act of 1974 by which the Congress changes existing laws that affect revenues or direct spending to conform to the revenue and spending targets established in the budget resolution. The budget resolution may contain *reconciliation instructions*, which direct Congressional committees to make changes in revenue or direct spending programs under their jurisdiction to achieve a specified budgetary result. The legislation to implement the instructions is usually combined into one comprehensive *reconciliation bill*. Reconciliation affects revenues, direct spending, and offsetting receipts, but usually not discretionary spending. See **budget resolution**, **revenues**, **direct spending**, and **discretionary spending**.

recovery: A phase of the business cycle that lasts from a trough until overall economic activity returns to the level it reached at the previous peak. (NBER) See **business cycle**.

revenues: Funds collected from the public arising from the sovereign power of the government. Federal revenues consist of receipts from income taxes (individual and corporate), excise taxes, and estate and gift taxes; social insurance contributions; customs duties; fees and fines; and miscellaneous receipts, such as Federal Reserve earnings, gifts, and contributions. Federal revenues are also known as federal governmental receipts but do not include offsetting receipts, which are recorded as negative budget authority and outlays. Compare with **offsetting receipts**.

risk premium: The additional return that investors require to hold an asset whose perceived return is riskier than that of a hypothetically safe asset. The risk can arise from many sources—such as the possibility of default (in the case of corporate or municipal debt) or the volatility of earnings (in the case of corporate equities).

S corporation: A domestically owned corporation with no more than 75 owners who have all elected to pay taxes under Subchapter S of the Internal Revenue Code. S corporations are treated like partnerships. That is, they are exempt from the corporate income tax, but the owners pay income taxes on all of the firm's income, even if some of the earnings are retained by the firm.

saving rate: See **personal saving**.

seigniorage: The gain to the government from the difference between the face value of minted coins put into circulation and the cost of producing them (including the cost of the metal used in the coins). Seigniorage is considered a means of financing and is not included in the budget totals. See **means of financing**.

sequestration: The cancellation of budgetary resources to enforce the discretionary spending caps and pay-as-you-go procedures established in the Budget Enforcement Act of 1990 and most recently extended by the Balanced Budget Act of 1997. Sequestration is triggered if the Office of Management and Budget determines that enacted discretionary appropriations exceed the discretionary spending caps or that enacted legislation affecting direct spending and receipts increases the deficit or reduces the surplus. Changes in direct spending and receipts that increase the deficit or reduce the surplus would result in reductions in direct spending not otherwise exempted by law. Discretionary spending in

excess of the caps would cause the cancellation of budgetary resources within the discretionary spending category. See **discretionary spending caps** and **pay-as-you-go**.

short-term interest rate: The interest rate earned by a debt instrument (such as a Treasury bill) that will mature within one year.

standardized-budget surplus: The level of the federal budget surplus that would occur under current law if the economy operated at potential GDP. The standardized-budget surplus provides a measure of underlying fiscal policy by removing the influence of cyclical factors from the budget surplus. (CBO) Compare with **cyclical surplus**.

structural surplus: Same as **standardized-budget surplus**.

Subchapter S corporation: See **S corporation**.

subsidy cost: See **credit subsidy**.

surplus: The amount by which revenues exceed outlays in a given period, typically a fiscal year. A negative surplus is equivalent to a deficit. See **deficit**.

10-year Treasury note: An interest-bearing note issued by the U.S. Treasury that is to be redeemed in 10 years.

three-month Treasury bill: An interest-bearing security issued by the U.S. Treasury that is to be redeemed in 91 days.

thrift institutions: Savings and loan institutions and mutual savings banks.

total factor productivity: See **productivity**.

transfer payments: Payments in return for which no good or service is currently received, such as welfare or Social Security payments or money sent to relatives abroad. (BEA)

trough: See **business cycle**.

trust fund: A fund, designated as a trust fund by law, that is credited with income from earmarked collections and charged with certain outlays. Collections may come from the public (for example, from taxes or user charges) or from intrabudgetary transfers. The federal government has more than 150 trust funds. The largest and best known finance major benefit programs (including Social Security and Medicare) and infrastructure spending (the Highway and the Airport and Airway Trust Funds). See **federal funds**.

underlying inflation: See **underlying rate of inflation**.

underlying rate of inflation: The rate of inflation of a modified consumer price index for all urban consumers that excludes from the market basket the components most volatile in price: food, energy, and used cars. See **consumer price index**.

unemployment: Joblessness. The measure of unemployment is the number of jobless people who are available for work and are actively seeking jobs. The *unemployment rate* is unemployment as a percentage of the labor force. (BLS) See also **discouraged workers**.

unemployment gap: The difference between the nonaccelerating inflation rate of unemployment (NAIRU) and the unemployment rate. See **NAIRU**.

yield: The average annual rate of return on a security, including interest payments and repayment of principal, if it is held to maturity.

yield curve: The relationship formed by plotting the yields of otherwise comparable fixed-income securities against their terms of maturity. Typically, yields increase as maturities lengthen. The rate of that increase determines the "steepness" or "flatness" of the yield curve. Ordinarily, a steepening (or flattening) of the yield curve is taken to suggest that short-term interest rates are expected to rise (or fall).